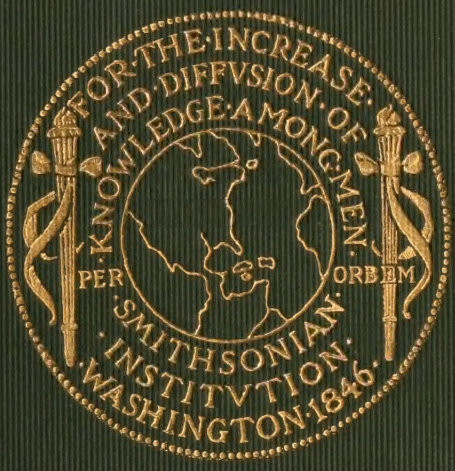
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ANNUAL REPORT

OF THE

BOARD OF REGENTS

OF THE

SMITHSONIAN INSTITUTION,

SHOWING

THE OPERATIONS, EXPENDITURES, AND CONDITION
OF THE INSTITUTION

FOR THE

YEAR ENDING JUNE 30, 1905

REPORT

OF THE

U. S. NATIONAL MUSEUM.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1906.

UNITED STATES NATIONAL MUSEUM,
UNDER DIRECTION OF THE SMITHSONIAN INSTITUTION,
Washington, October 1, 1905.

SIR: I have the honor to submit herewith a report upon the present condition of the United States National Museum, and upon the work accomplished in its various departments during the fiscal year ending June 30, 1905.

Very respectfully,

RICHARD RATHBUN,
Assistant Secretary, in charge of the U. S. National Museum.

Mr. S. P. LANGLEY,
Secretary, Smithsonian Institution.

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REPORT

UPON

THE CONDITION AND PROGRESS OF THE U. S. NATIONAL MUSEUM DURING THE YEAR ENDING JUNE 30, 1905.

By Richard Rathbun,

Assistant Secretary of the Smithsonian Institution, in charge of the U. S. National Museum.

GENERAL CONSIDERATIONS.

The establishment of a museum for this Government, which was intended to embrace all of the national collections, was provided for in the act of Congress of August 10, 1846, founding the Smithsonian Institution, as follows:

> Whenever suitable arrangements can be made from time to time for their reception, all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens belonging to the United States, which may be in the city of Washington, in whosoever custody they may be, shall be delivered to such persons as may be authorized by the Board of Regents to receive them, and shall be so arranged and classified in the building erected for the Institution as best to facilitate the examination and study of them; and whenever new specimens in natural history, geology, or mineralogy are obtained for the museum of the Institution, by exchanges of duplicate specimens, which the Regents may in their discretion make, or by donation, which they may receive, or otherwise, the Regents shall cause such new specimens to be appropriately classed and arranged.

The Smithsonian fund at the time it was turned over to the United States in 1838 amounted to about $515,000, but by 1846 interest had accrued to the extent of about $240,000 additional. The latter sum was made immediately available for the construction of a building and for other purposes incidental to the first equipment of the Institution, but the principal, invested by the Government, was to remain intact, only the interest therefrom to be applied to future operations. For the period in question this endowment was, with perhaps one or two exceptions, larger than that of any other learned establishment in America, and Congress was led to believe that the income would be sufficient to meet all the requirements it had imposed. Events which soon followed showed, however, that this view was not justified, and in 1857, when the completion of the Smithsonian building rendered possible the transfer of the specimens from the Patent Office, Congress found it necessary to aid the Insti-

tution by small appropriations for constructing cases and caring for the collections, and some twenty years later the entire expense on this account was assumed by the Government.

It should be explained, however, that beginning as early as 1850 important materials for a museum were being assembled by the Smithsonian Institution, at its own cost, through the activities of its assistant secretary, Prof. Spencer F. Baird, whose personal bent was toward the collection and study of natural history specimens. With the approval of Secretary Henry he put into operation extensive plans for accomplishing this purpose, which were soon yielding abundant returns. Professor Baird's own vacations were spent in field work. Officers of the Army and Navy and of other branches of the Government service, fishermen, fur traders, private explorers, and such powerful organizations as the Hudson's Bay Company and the Western Union Telegraph Company were enlisted in the work and rendered valuable assistance. The influence exerted by these beginnings has, moreover, been lasting and widespread, as shown in the extensive natural history operations of subsequent national and State surveys, the organization of the Bureau of Fisheries and Bureau of Ethnology, and the support given to scientific collecting by many other bureaus of the Government.

The discussion of plans for the organization of the Smithsonian Institution, which devolved upon the first Board of Regents, led, in January, 1847, to the unanimous adoption of the following resolution expressing approval of the museum feature as one of its important functions:

Resolved, That it is the intention of the act of Congress establishing the Institution, and in accordance with the design of Mr. Smithson, as expressed in his will, that one of the principal modes of executing the act and the trust is the accumulation of collections of specimens and objects of natural history and of elegant art, and the gradual formation of a library of valuable works pertaining to all departments of human knowledge, to the end that a copious storehouse of materials of science, literature, and art may be provided, which shall excite and diffuse the love of learning among men, and shall assist the original investigations and efforts of those who may devote themselves to the pursuit of any branch of knowledge.

In 1879, when most of the existing Government surveys, whose work included the collecting of specimens in the field, had been established, Congress deemed it important to practically reenforce the provisions of the act founding the Institution, in order that there might be no doubt as to the proper disposition of the material derived from these sources, by the following item in the sundry civil appropriation act for 1880:

All collections of rocks, minerals, soils, fossils, and objects of natural history, archeology, and ethnology, made by the Coast and Interior Survey, the Geological Survey, or by any other parties for the Government of the United States, when no longer needed for investigations in progress shall be deposited in the National Museum.

Although the name "National Museum" was sometimes used in the earlier reports of the Smithsonian Institution, it did not appear in any of the laws of Congress until 1875. Its general employment may be said to date from the time of the Philadelphia Centennial Exhibition of 1876, the first exposition in this country in which the Government participated, and the first to make known to vast numbers of the people of the United States the existence of national collections at Washington, as well as new methods of installing and exhibiting museum materials, differing radically from the older cabinets of college or local museums, which had prevailed up to that period. After its close the Government exhibits brought back to Washington, together with the extensive gifts made to the United States by private persons and foreign governments, rendered necessary the early erection of a new and separate building, devoted entirely to museum purposes.

The scope of the National Museum as defined by law comprises practically all branches of science and of the arts which admit of museum treatment. With exceedingly limited means for making purchases, and therefore almost entirely dependent as to the character of its collections upon Government explorations, personal donations, and exchanges, its different departments have had a very unequal growth. The subjects best represented are ethnology and archeology, geology, zoology, and botany. A fair beginning has been made in the exceedingly important branches of the industrial arts and American history, and scarcely more is required to place these two departments on a proper basis than sufficient room to display the necessary collections, which are certain to be received, in greater part through gratuitous contributions, when it is known that the Museum is prepared to care for them. In the department of the fine arts the collection is still very small, but the subject is one which must sooner or later receive earnest consideration by the Government.

The specimens in all branches are classified in two series—one, generally comprising the bulk of the material, being arranged for the purposes of scientific research and reference in laboratories and storerooms; the other, selected with regard to its general educational value and public interest, and accompanied by descriptive labels, being displayed in glass-covered cases in the public halls. The duplicate specimens not required for exchanges are made up into sets for distribution to schools and colleges, as opportunity offers. Papers descriptive of the collections, both technical and semipopular, are published for gratuitous circulation to the extent of three or more volumes yearly, and, finally, the Museum has come to be regarded as a bureau of information in respect to all subjects

with which it is concerned, the correspondence which this involves now constituting one of its heaviest tasks.

The late Dr. G. Brown Goode divided the history of the Museum into three epochs, corresponding in a general way with successive additions to its purposes, which he described as follows:

First, the period from the foundation of the Smithsonian Institution to 1857, during which time specimens were collected solely to serve as materials for research. No special effort was made to exhibit them to the public or to utilize them, except as a foundation for scientific description and theory.

Second, the period from 1857, when the Institution assumed the custody of the "National Cabinet of Curiosities," to 1876. During this period the Museum became a place of deposit for scientific collections, which had already been studied, these collections, so far as convenient, being exhibited to the public and, so far as practicable, made to serve an educational purpose.

Third, the present period (beginning in the year 1876), in which the Museum has undertaken more fully the additional task of gathering collections and exhibiting them on account of their value from an educational standpoint.

During the first period the main object of the Museum was scientific research; in the second the establishment became a museum of record as well as of research, while in the third period has been added the idea of public education. The three ideas—record, research, and education—cooperative and mutually helpful as they are, are essential to the development of every great museum. The National Museum endeavors to promote them all.

It is a museum of record in which are preserved the material foundations of an enormous amount of scientific knowledge—the types of numerous past investigations. This is especially the case with those materials that have served as a foundation for the reports upon the resources of the United States.

It is a museum of research, which aims to make its contents serve in the highest degree as a stimulus to inquiry and a foundation for scientific investigation. Research is necessary in order to identify and group the objects in the most philosophical and instructive relations, and its officers are therefore selected for their ability as investigators as well as for their trustworthiness as custodians.

It is an educational museum, through its policy of illustrating by specimens every kind of natural object and every manifestation of human thought and activity, of displaying descriptive labels adapted to the popular mind, and of distributing its publications and its named series of duplicates.

AS A MUSEUM OF RECORD.

The record collections of the Museum have had an unprecedented growth, due mainly to the rapid exploration and development of a rich and extensive country, under the liberal and progressive policy of the Government, though much material has been derived from other sources. The total number of specimens of all classes now in the Museum is above 6,000,000, but this includes a very large quantity of material which has not yet been studied. As fast as the latter is worked up, it is placed with the record series.

The principal sources of the record as well as of the unclassified collections have been as follows:

The earlier explorations carried on by or in conjunction with the Smithsonian Institution.

The United States Exploring Expedition around the world from 1838 to 1842, the North Pacific or Perry Exploring Expedition from 1853 to 1856, and many subsequent investigations by the Navy.

The activities of the members of the United States diplomatic and consular service abroad.

The Government surveys at home, such as the Pacific Railroad surveys, the Mexican and Canadian boundary surveys, and the surveys carried on by the Engineer Corps, the Signal Corps, and other branches of the U. S. Army.

The explorations of the U. S. Geological Survey, the U. S. Bureau of Fisheries, several bureaus of the Department of Agriculture, the Bureau of American Ethnology of the Smithsonian Institution, and other scientific branches of the Government.

Donations and purchases in connection with the several expositions at home and abroad in which the Museum and Bureau of Fisheries have participated since 1876.

Exchanges with foreign and domestic museums and with individuals.

AS A MUSEUM OF RESEARCH.

In order to permit of their examination and study, as provided in the act of establishment, the collections of the Museum are, to the extent of its accommodations, arranged systematically and in a manner convenient for reference. Access to the reserve or study series, so called, consisting of the main body of the collections and as complete in all the groups as the accessions have made possible, is given to all properly qualified persons engaged in original research. The opportunities thus afforded are widely availed of, the Museum being visited every year by many investigators, some of world-wide distinction, coming from the scientific centers of Europe and other foreign countries, as well as from all parts of the United States. Material is also occasionally sent to representatives of other institutions having the means of providing for its safe-keeping, when required in the working up of special subjects or for comparison with their own collections.

The custodianship of the collections being the first and most imperative duty devolving upon the scientific staff of the National Museum, its members find comparatively little time for advancing knowledge, though they are selected with special reference to their ability to identify and classify the specimens under their charge, and in fact, every year prepare many important contributions. A number of assistants employed by other scientific bureaus have laboratory room in the Museum in which to conduct investigations on material kept here in their care, and in whose results the Museum shares. Many collections have from time to time been transferred to the Museum

by the Geological Survey, the Bureau of Fisheries, the Department of Agriculture, and other branches of the Government in advance of their final working up, in order to provide for their safe storage and to secure the better facilities for study thus afforded. Under this arrangement the amount of research work carried on in the Museum buildings has been greatly increased.

With practically no funds to expend in explorations, the members of the Museum staff are mainly dependent upon the opportunities offered by other Government bureaus and private expeditions for such occasional field work as is carried on. In this connection special researches may be conducted, though the chief advantage results from the acquisition of new and valuable material and a knowledge of the conditions under which it occurs in nature.

AS AN EDUCATIONAL MUSEUM.

The educational side of the Museum comprehends primarily the instruction and enlightenment of the visiting public by an extensive exhibition of representative specimens illustrating the different subjects, so installed and labeled that they may be examined and understood without special direction. Lack of room has prevented this feature from being fully carried out in recent years, but better conditions will prevail upon the completion of the new building. Through the participation of the Museum in all of the expositions since 1876, the people in many parts of the country have also received the benefits of this educational system of exhibition, which has generally been produced on a large scale, and the formation of new museums has been greatly stimulated.

Another popular educational feature, having for its purpose the promotion of scientific teaching, has been the distribution to schools and colleges throughout the country of duplicate specimens, properly identified and labeled, and put up in carefully selected sets. Several hundred thousand specimens have already been disposed of in this way.

Though mainly technical and most useful to the investigator, the publications of the Museum may be classed, in a general way, as belonging to its educational side, being the medium through which the nature and extent of its collections are made known. They consist of the Annual Reports, the Proceedings, and the Bulletins.

THE NEW MUSEUM BUILDING.

Just previous to the beginning of the fiscal year to which this report relates, or, to be more exact, on June 15, 1904, the work of excavating for the foundations and basement of the new building was begun. The ground was found to be firm and dry over nearly the entire site,

thus furnishing exceptionally good conditions for the massive structure to be erected. The excavation was completed during the summer, a considerable undertaking, since the area covered is larger than that occupied by any other Government building in Washington except the Capitol. The laying of the heavy concrete foundations immediately followed and was finished on November 9, 1904.

By September 1, however, the working plans had been sufficiently advanced to invite proposals for all the granite required, both for the exterior faces of the building and for the courses in the courts. There were nine bidders, though a larger number of quarries was represented, and their proposals were opened on October 1. Samples of the granite accompanied the bids, and these were examined with reference to the durability of the stone as well as its fitness for best expressing the architectural design of the building and for securing harmony with the generally acknowledged principle that the exterior walls of the public buildings in Washington should be of a light color. The material finally selected, with the approval of the building committee of the Board of Regents, was as follows: For the basement the warm gray, usually called pink, granite from the quarries at Milford, Massachusetts; for the first and second stories, which compose the greater part of the fronts, including also the main south central feature to the roof of the dome, the pure white granite from the recently opened quarries at Bethel, Vermont; for the upper story, the white granite from Mount Airy, North Carolina. The two interior open courts, each measuring 128 feet square, will be faced with a light-colored brick, relieved by courses and window arches of stone. For the latter has been chosen the same variety of granite from Woodstock, Maryland, that was used in the courts at the Library of Congress. Before the close of the fiscal year the quarrying and cutting of the granite, especially for the basement, was well under way.

During the early part of the winter a narrow section in wood of the front of the building, to the full height of the stonework, was erected on the foundations for the purpose of studying the proportions as worked out on the plans. This resulted in a decision to increase the height of the building to the extent of 3 feet, which was accomplished by raising the level of the basement floor 1½ feet, and adding the same amount to the height of the basement. Among incidental advantages following this change was the opportunity for raising the numerous pipe trenches, insuring a greater fall for the drainage system, and for obtaining a level grade line around the building with an architecturally better base course of stone. The change also permits the transfer of the lecture hall to the rotunda basement, removing it from the center wing, which will become available for exhibition purposes.

Contracts were entered into during the winter and spring for the heavy steel framework for the main story floor and for much of the inside building materials which were soon to be required.

URGENT NEEDS OF THE MUSEUM.

The Museum's interests have been most retarded during the past two decades by the excessive crowding of its buildings, but this condition will soon be remedied in so liberal and effective a manner as to excite the pride of the whole country. In another direction, however, there exists an almost equally important emergency, which has so far failed to be appreciated. It relates to the activities of the Museum, its maintenance, and its duties toward the Government and the public. The Museum is undermanned and the members of the staff are to such an extent underpaid that the force can not be held intact. It makes no difference how large, how small, or how crowded its buildings may be, the work must go on, and in such degree as it is neglected is the Museum dead and useless. To the ordinary mind a museum is a house filled with curiosities. A true museum of modern times is never such, and the Museum of this country has been honored by Congress with functions of a high and important character. As the custodian of the national collections, it is preserving material records secured through the expenditure of many millions of dollars. So interested have the people become in their own Museum that they have swelled these records to the extent of a large proportion of its contents. The general public shares in the benefits through the large and attractive, but at the same time instructive, displays made in the several exhibition halls. Educational interests throughout the country are advanced through the distribution to schools and colleges and the smaller museums of the hundreds of thousands of duplicates released with the progress of investigations. But it should not be forgotten that the collections here assembled and the researches here carried on form the basis of some of the most important economic achievements of the Government.

The hundreds of thousands of visitors to the Museum obtain no idea of the real activities going on. They see only the attendants. They do not know that the three or four acres of floor and the 2,000 exhibition cases are cleaned every day. They have no opportunity for learning that the display collections require unceasing care and are always changing, for their special benefit, upon the receipt of new material. They are not aware that behind the scenes, in laboratories and storage rooms, there is a multitude of work in progress—work required by law, and work that advances both science and the public good. If only these facts could be fully comprehended, the

Museum would undoubtedly receive that support from the Government which its history justifies and the promotion of its usefulness demands.

SOME IMPORTANT EVENTS OF THE YEAR.

The past year has been especially signalized by the amount of material added to the collections, which has never before been exceeded in any one year except at the close of the Philadelphia Centennial Exhibition. The bulk of this material was obtained at the Louisiana Purchase Exposition through the liberality of exhibitors, both foreign and domestic, whose contributions amounted in the aggregate to over 30 carloads. Two or three of these carloads consisted of specimens pertaining to the ethnology of several countries and to certain miscellaneous subjects, but the contents of all the remainder were illustrative of mineral resources, chiefly of the United States, and their manufacture. With the view of providing for the oversight of the latter a new department of the Museum, entitled Mineral Technology was constituted under the curatorship of Dr. Charles D. Walcott, Director of the U. S. Geological Survey, who has also for a long period had an honorary connection with the Museum staff. There is at present no place in which such an extensive collection could be displayed, and it has therefore been stored in bulk pending the completion of the new building.

Not taking into account the objects in mineral technology, since they could not be unpacked and counted, the total number of specimens received during the year amounted to about a quarter of a million. Next in importance to the donations at St. Louis was the generous gift by Capt. John Donnell Smith, of Baltimore, of his private herbarium of over 100,000 plants, mainly from tropical America, and of his choice botanical library of about 1,600 volumes. Another benefactor was Dr. William L. Abbott, of Philadelphia, an accomplished naturalist, who for some seven or eight years has lived in the Far East, devoting his time to the collection of specimens and information in the fields of zoology and ethnology. The region he has covered, mainly the Malay Peninsula, Borneo, Sumatra, and many near-by islands, has heretofore been practically unrepresented in this Museum. Mention should also be made of the important field-work done in the Philippines, especially on the island of Mindanao, by Maj. Edgar A. Mearns, surgeon, U. S. Army, who discovered a practically new fauna on the upper slopes of Mount Apo. His valuable collection, presented to the Museum, contains many new forms which are now being studied.

The collections in ethnology and archeology have been greatly enriched by explorations in the southwestern United States and by contributions from Japan, Australasia, South Africa, Mexico, Peru,

and Argentina. The curator of birds, as the result of a trip to Costa Rica, brought back with him over 1,800 choice specimens—a notable addition to his division. From the U. S. Bureau of Fisheries were transmitted large quantities of fishes and marine invertebrates, including many types and many undescribed forms, obtained during recent explorations, and from the U. S. Geological Survey a large number of rock specimens, minerals, and fossils.

Over 28,000 duplicate specimens were used in making exchanges and in the distributions to educational establishments, and above 14,000 specimens were lent to specialists for study.

Some changes were rendered possible in the exhibition halls by replacing certain of the older collections with recent accessions, especially on the subject of the ethnology of Malaysia and the Philippines. Two noteworthy additions were the cast of a sulphur-bottom whale, about 80 feet long, which has been suspended from the roof of the south hall, and a skeleton of the immense fossil Dinosaurian reptile, *Triceratops prorsus,* installed in the southwest court.

SUMMARY OF THE OPERATIONS OF THE YEAR.

APPROPRIATIONS AND EXPENDITURES.

The amount appropriated by Congress for the maintenance of the National Museum during the year covered by this report was $267,580. In the same act an additional sum of $6,500 was made immediately available for transporting from St. Louis to Washington the large number of exhibits presented to the Government. The appropriations for the regular expenses were the same as for the preceding year, except that the item for the purchase of specimens was omitted and the item for printing and binding increased by $8,000. There was also an increase of $180 in the amount allowed for the rent of workshops. The sum of $255,017.90 was expended from this appropriation up to July 1, 1905, leaving a balance of $19,062.10 to cover outstanding liabilities. Disbursements have also been made from the unexpended balance of the previous year amounting to $14,163.75, and from the balance for the year 1903 amounting to $141.44.

In the following statement the expenditures under each item of the appropriation for 1904–5 are shown.

Appropriations and expenditures for the fiscal year ending June 30, 1905.

Object.	Appropriations.	Expenditures.	Balance June 30, 1905.
Preservation of collections	$180,000.00	$173,354.66	$6,645.34
Furniture and fixtures	22,500.00	19,730.01	2,769.99
Heating and lighting	18,000.00	16,530.60	1,469.40
Building repairs	15,000.00	13,199.10	1,800.90
Books	2,000.00	1,034.04	965.96
Rent of workshops	4,580.00	4,579.92	08
Postage	500.00	500.00	.....
Printing and binding	25,000.00	24,824.69	175.31
Transportation of exhibits acquired from the Louisiana Purchase Exposition	6,500.00	1,264.88	5,235.12
Total	274,080.00	255,017.90	19,062.10

Disbursements from unexpended balances of appropriations for the fiscal year ending June 30, 1904.

Object.	Balance June 30, 1904.	Expenditures.	Balance June 30, 1905.
Preservation of collections	$6,139.99	$5,941.00	$198.99
Furniture and fixtures	3,431.98	3,425.04	6.94
Heating and lighting	815.58	761.10	54.48
Building repairs	2,468.32	2,414.98	53.34
Books	772.40	754.08	18.32
Purchase of specimens	1,482.27	867.55	614.72
Rent of workshops	.08		.08
Total	15,110.62	14,163.75	946.87

From the unexpended balances of the appropriation for 1903 disbursements were made as follows: Preservation of collections, $39.42; books, $31.02; purchase of specimens, $71, leaving balances of $360.81, $18.74, and $279.18, respectively. These balances, with the unexpended balances of other appropriations for the same year, amounting in all to $787.20, have reverted to the Treasury.

The appropriations for the regular expenses of the Museum during the year ending June 30, 1906, are the same as those for the preceding year, the items being as follows:

Furniture and fixtures	$22.500
Heating and lighting	18,000
Preservation of collections	180,000
Books, pamphlets, and periodicals	2,000
Building repairs	15,000
Rent of workshops	4,580
Postage	500
Printing and binding	25,000
Total	267,580

A special appropriation of $1,500,000 was made for continuing the construction of the new building for the National Museum.

BUILDINGS.

An account of the work done in connection with the erection of the new Museum building on the north side of the Mall has been given on a previous page. The excavation of the site, begun June 15, 1904, was finished during the summer, and the laying of the heavy concrete foundations in the autumn. Before the completion of this work the contracts for the granite had been awarded, and contracts for other classes of material were let at intervals during the remainder of the fiscal year. The heavy snows which everywhere prevailed during the winter interfered with quarrying and prevented the delivery of stone in sufficient quantities to begin build-

ing operations until after the close of the year. There is every prospect, however, of better progress hereafter.

In the matter of repairs to existing buildings, the roofs of the Museum building have, as usual, demanded most attention. Constructed a quarter of a century ago at so low a cost as to necessitate the strictest economy in material and workmanship, they have given trouble almost from the beginning, and on a few occasions some of the main sections have threatened to collapse from the weight of snow. The temporary strengthening a few years ago of the supporting framework over the main halls has continued to be effective, but the covering, especially where of slate, has so far deteriorated as to act almost like a sieve during heavy rains. In the last report mention was made of an experimental trial in the direction of stopping the leaks by placing over the slate of the east hall a coating of asphalt, burlap, and slag. Having answered the purpose through one season, the corresponding roofs over the three other main halls were treated in the same manner during last year. The roofs of the rotunda and southeast pavilion were also covered with asphalt and burlap, the slag being omitted.

The slate roof over the northeast pavilion was renewed with a better quality of slate. The window ventilators in the clearstories of the main halls were provided with gearing to permit of their being handled from the floor, some additional skylights were inserted over four of the ranges, and much of the metal work, as well as of the woodwork facing upon the roof, were painted. Several worn-out floors in the Museum building were replaced by cement, tiles, or wood, the men's toilet room was entirely renovated, and many wall surfaces defaced by leaks or time were touched up or repainted.

The 20 large windows in the archeological hall, which have for some time been in such poor condition that a heavy storm might crush them in, were completely repaired, reglazed, and painted, a long and tedious work, since they are cut up into small panes set diamond shape. The workshops and storage sheds called for a small amount of repairs.

The trenches under the building, in which are located the steam pipes and electric wires, were thoroughly renovated, all dead wires being removed and the live ones placed in steel conduits. Those on the north side of the building were found to be exceedingly damp, caused by the seepage of water through the adjoining walls. This condition it has been arranged to correct by the construction of a cement platform or walk along the outside of the wall.

In view of the crowded condition of the halls only a few exhibition cases were constructed, but in order to accommodate new collections, of which many were received during the year, especially from the Louisiana Purchase Exposition, a number of cases of old

patterns were remodeled to meet the requirements. The woodwork of the mahogany cases in the north hall was refinished, and that of the black cases in all the other exhibition halls was given a fresh coat of paint. The old pine alcove cases of the bird hall in the Smithsonian building, which have been a constant source of trouble, were made as dust-proof as possible, and the public reading tables, formerly a feature of the exhibition halls, but temporarily removed, were refinished and replaced.

To supply the increasing demands for storage facilities in all departments, of a character to permit of the convenient arrangement of specimens, cases to the number of 213 and drawers to the number of 1,032, besides storage racks and shelving, were constructed during the year. A quantity of old furniture was also remodeled for the same purpose. Minor items to be mentioned in this connection are articles of furniture for the offices, including file and card catalogue cases; a large number of frames for the descriptive case labels in the exhibition halls; packing boxes for the distribution of duplicate specimens and for field outfits, and a considerable number of crates and cases for the storage in bulk of material for which at present there is no place among the classified collections.

The heating of the Smithsonian and National Museum buildings and of the three small adjacent buildings on the Mall by the steam plant located in the basement of the Museum building was accomplished more satisfactorily during last winter than ever before. Steam was first raised on October 8, 1904, and was discontinued on May 2, 1905, being maintained on an average about sixteen hours a day. The heating capacity in the exhibition halls of the Museum was increased by installing two 100-foot Bundy radiators in the vestibule at the north entrance and four additional ones on the east and west sides of the north hall. The steam and return pipes from the Smithsonian building to the western workshop were relaid in a more perfect manner, their old covering having caused a too rapid condensation of steam.

The total amount of fuel used in the main furnaces was 830 tons of coal and 43 cords of wood.

At the beginning of the fiscal year a new arrangement of telephones was adopted, whereby the cost of this service was very materially reduced without affecting its efficiency. As an additional precaution in the event of fire breaking out among the cases and other furnishings, six standard alarm boxes, of the pattern used in the District of Columbia, were installed in as many different parts of the galleries in the Museum building. The system connects with the office of the superintendent, where the location of a fire would be immediately indicated by the number of the station.

ADDITIONS TO THE COLLECTIONS.

The principal source of accessions during the past year was, as a whole, the Louisiana Purchase Exposition. The exhibition made in that connection by the Museum itself contained many important objects acquired through the Government appropriation for the exposition, which, at its close, were incorporated in the exhibition series here, excepting such as were sent to the Lewis and Clark Exposition at Portland, Oregon.

Besides these, however, and much more noteworthy, were the gifts made to the national collections by several foreign governments, by many States of the Union, and by a large number of individuals having exhibits at St. Louis. So extensive in fact were these contributions that they amounted in bulk to about 30 carloads, all of which were brought to Washington in apparent safety, though, in view of the crowded condition of the Museum, only a relatively small amount of the material could be cared for in the exhibition halls or with the study series, it being necessary to place the greater bulk of the collections in storage in the boxes in which the specimens were packed. In addition to specimens there were also about five carloads of exhibition cases donated by exhibitors.

The Department of Biology profited very little from these gifts, much the larger part being illustrative of ethnology, geology, and the arts and industries. As the collections did not reach Washington until late in the year and could only be partially unpacked and examined, it is quite impossible at this time to give even a satisfactory general account of them.

Reference is made elsewhere to the establishment of a Department of Mineral Technology. The object in recognizing such a department at this time was that intelligent direction might be given to the selection of objects at the St. Louis Exposition, where exceptional opportunities existed for obtaining material relating to the subject. The spirit of liberality displayed by those having exhibits of this character resulted in donations to the extent of 25 out of the 35 carloads above referred to, representing many different parts of the world, and comprising the natural products, models or actual examples of the appliances of manufacture and the finished products in many departments of mineral industry. As it was understood that this material would have to go into storage, it was packed at St. Louis with this object in view, and, accordingly, no detailed inventory of the specimens can be made for some time.

The Department of Geology received many important additions, especially in the way of large masses and pieces, for most of which appropriate places have already been found in the exhibition halls. The collections for the Department of Anthropology, next in extent

to those for mineral technology, were exceedingly varied and interesting, since they illustrate the customs and industries of several peoples, and will richly supplement the existing exhibition series.

The following brief and incomplete summary of the contributions from St. Louis must suffice for the present.

From the exhibit of the government of the Philippine Islands there was obtained a large and comprehensive collection illustrating the arts and the social and domestic life of the natives of the Philippines, and the resources of the islands in agriculture, forestry, mining, and the fisheries. With this addition the Philippine collection of the National Museum probably becomes the most important and diversified of its kind in the country. Through the generosity of the Government of Siam a large share of its very instructive and attractive exhibit at St. Louis was presented to the National Museum. This collection, illustrative of the arts and industries of the Siamese, is especially rich in the implements used in the manufacture of textiles, and in agriculture and the fisheries, the larger objects being represented by models. It also contains a large series of mats, specimens in mineral technology, and the skins and heads of a number of native animals. Through the Japanese commission were secured the interesting exhibit of the Red Cross Society of Japan, which had been displayed in the Imperial Japanese Pavilion; examples of the technical work of the higher schools, prehistoric implements, and a very extensive collection of mineral technology, comprising the exhibits of the Imperial Geological Survey and the Bureau of Mining, and of 22 private exhibitors. Miscellaneous exhibits were also received from other countries, as follows: Great Britain: Chemicals and other articles used in the arts, illustrations, quarry and mining products, from 15 exhibitors; and publications and mining charts of the Geological Survey of India. France: Contributions from 15 exhibitors in mineral technology, book illustrations, geographical maps, etc. New Zealand: Native woods and illustrations of the native people. Mexico: A large variety of ores and minerals presented by 60 different exhibitors, a series of maps of the Republic and works on ethnology. Brazil: A dugout canoe 57 feet long, two characteristic fishing craft with their complete outfits, and ores and minerals from the States of Minas Geraes and Espirito Santo. Argentina: A collection of native woods.

Besides the above, collections in geology and mineral technology, some of large extent and great value, were obtained from the Governments or individual exhibitors of Germany, Italy, Portugal, Austria, Belgium, Canada, Cuba, and Peru. Especially noteworthy in this connection were the very complete exhibit of the Goldschmidt Thermit Company of Essen-Ruhr, Germany, illustrating the processes of chemical-welding and manufacture of steel-hardening alloys, and

the Tonwerk Shippach exhibit of clays, metallurgy, and crucibles. Much the greater bulk of material in geology and mineral technology, however, came from the exhibits of at least 12 States and 84 private exhibitors of the United States, by whose generosity the Museum becomes possessed of a substantial nucleus for the building up of its technical branch along important and useful lines. All of these collections are important, and some were prepared at considerable expense.

A few small purchases were also made at St. Louis. The principal one, from the Ceylon Commission, consisted of an exceedingly interesting collection, quite unique in its character and completeness, illustrating the important pearl fishery of Ceylon, and also the fisheries for the chank and bêche de mer in the same waters. The products of these industries are represented by many specimens, including the shells and soft parts of the oyster with a few pearls, and specimens of the associated corals and starfishes, together with examples of all the appliances and boats employed, either of actual size or as models: the sieves, scales, and weights for sorting and valuing the pearls; the drill for boring; an equipment for polishing gems, etc. From the same commission there was also purchased a small but very instructive collection illustrating chiefly the native palm and bamboo industry of the island of Jaffna, off the northern end of Ceylon.

Mention may here be made of a notable gift to the United States by the Government of China, consisting of a large oil portrait of the Empress Dowager of China executed by Miss Katherine A. Carl, which had been exhibited in the art department of the St. Louis Exposition. The presentation, which took place at the White House with appropriate ceremonies, was made to the President by the Chinese minister resident in Washington. The painting, encased in its heavy and elaborately carved frame of camphor wood, was immediately transferred to the National Museum, where it is now installed.

The number of accessions received by the Museum during the year, including only such from the Louisiana Purchase Exposition as could be placed on record before the close of the year, was 1,692, comprising approximately 245,384 specimens. Making allowances for the material used in exchanges and the preparation of educational sets, it is estimated that the total number of specimens now in the possession of the Museum is about 6,141,990, classified as follows: Anthropology, 986,964; biology, 4,409,135; geology, 745,891.

The additions to the Department of Anthropology comprised 10,862 specimens, obtained in large part through the medium of the St. Louis Exposition, as explained above, the countries mainly represented from this source being Siam, the Philippine Islands,

Japan, New Zealand, Brazil, and Ceylon. Besides these the most noteworthy acquisitions in ethnology consisted of collections presented by Dr. W. L. Abbott and Dr. Edgar A. Mearns, U. S. Army. Both of these gentlemen, whose names have been so often mentioned as benefactors, have a thorough appreciation of the true purpose of scientific field-work, and whatever is received from them can be relied upon to meet in all respects the requirements of research. Doctor Abbott's collection consisted of 755 objects from the islands off the southeastern coast of Sumatra and from the Mergui Archipelago of Lower Burma, selected as far as possible to represent complete ethnographic series of each of the peoples visited. The collection of Doctor Mearns comprised 134 objects from the Moros of Mindanao, where he had been stationed as chief surgeon with the army under Gen. Leonard Wood. Through the kind offices of Baron P. Paumgartten, chancellor of the Austro-Hungarian embassy in Washington, exchanges were arranged with Baron Ludwig Ambrozy of Vienna, from whom five complete peasant costumes of the Wallachians, of South Hungary, were received during the year.

The more important American collections in ethnology were the result of three Government investigations, one by the National Museum and two by the Bureau of American Ethnology. During his excavations in western Socorro County, New Mexico, in the summer of 1904, Dr. Walter Hough, assistant curator of ethnology, secured 863 specimens consisting of ancient sacrificial objects, stone, bone, and shell implements and carvings, pottery, basketry, bows, arrows, etc., from pueblos, cliff houses, and caves of a region inhabited by prehistoric people of Pueblo stocks. Dr. Aleš Hrdlička, assistant curator of physical anthropology, while on an expedition to Southern Arizona for the Bureau of American Ethnology, gathered several hundred specimens in ethnobotany, basketry, stone implements, pottery, etc., from among the San Carlos Apaches, the Mescalero Apaches, and the Pimas. The second collection from the Bureau of Ethnology, consisting of over 500 specimens, was the result of recent investigations at the pueblo of Zuñi by Mrs. Matilda Coxe Stevenson. It is rich in ceremonial objects, such as fetishes and paraphernalia of a character most difficult to obtain; ethnobotanical specimens, pigments, ceramics, agricultural implements, etc. Also interesting to note are a complete set of horse trappings of the South American Gauchos and a number of Philippine objects from the President of the United States; and an ancient basket shield and feather fur garment, from the Canyon de Chelly, Arizona, transmitted by the U. S. Department of the Interior.

The division of physical anthropology received a large amount of material relating to the natural history of several races of man, especially the American Indians, Negroes, Slavs, and Filipinos. For

comparative studies there is also being assembled in this division a collection of the brains of animals, the principal accessions during the past year having come from the National Zoological Park, Mr. E. S. Schmidt, of Washington, and Dr. W. L. Abbott.

The most important additions in historic archeology consisted of 21 Arabic manuscripts and prints, presented by Dr. E. A. Mearns, U. S. Army, who obtained them among the Moros of Mindanao, and 23 coins and 18 pottery lamps and jars from the Orient, deposited by Hadji Ephraim Benguiat.

The division of prehistoric archeology received two collections from Japan in exchange. One comprised 160 specimens of flint and obsidian arrow points, chipped and polished stone hatchets, and fragments of pottery, which had been exhibited at the Louisiana Purchase Exposition by the College of Science of the Imperial Japanese University; the other, 76 stone implements and ornaments, from Mr. Y. Hirase. Other collections from abroad obtained by exchange consisted of 39 stone implements from North Australia, New South Wales, Victoria, and Tasmania, through Mr. E. S. Anthony, of Hobart, Tasmania; 345 specimens of stone implements and fragments of pottery, mainly from kitchen-middens and caves in Cape Colony, through the Albany Museum, of Grahamstown, South Africa, and an important series of stone hatchets from Thuringia, Germany, and of bronze dress-ornaments, bracelets, finger-rings, and neck chains from Etruscan graves at Belmonti, Italy, through Dr. Max Verworn, of the University of Göttingen. Mr. H. W. Seton-Karr, of Wimbledon, England, presented two polished stone implements from Bundelkund, India.

The greater number of important accessions in prehistoric archeology represented American countries. From the Bureau of American Ethnology there were transferred a cache of 152 rhyolite flaked blades, found by Henry Rogers in 1893 in a crevice between two large rocks in the Pigeon Hills, near Hanover, York County, Pennsylvania; 20 large flint blades, part of a cache obtained from a mound in Montezuma Village, Pike County, Illinois; a collection of flint implements, hammer stones, flakeage, refuse of blade manufactures, etc., obtained by Mr. Gerard Fowke in aboriginal quarries and workshops in Illinois, Tennessee, and Missouri, and about 750 stone implements and fragments of pottery, secured by Dr. Aleš Hrdlička in the ancient ruins of the San Carlos River Valley, Graham County, Arizona, on the grounds of the Rice Station Apache school, not heretofore explored.

Of Mexican antiquities there were several accessions, including 227 pieces of pottery, objects representing three different culture areas, constituting the Bauer collection; 13 casts of interesting stone objects, from the American Museum of Natural History; an ancient

stone statue, from Dr. Carl Lumholtz; casts of three carved stone yokes, from the National Museum of Mexico; five models of remarkable specimens of Aztec art, from Dr. Antonio Peñafiel; casts of three sculptured panels from the "Temple of the Sun," Tikal, and of two lintels from the "Temple of Quetzalcoatl," Lorillard City, both in Yucatan, from Desiré Charnay, Paris. From the Royal Museum of Ethnology of Berlin were obtained casts of carved stone yokes and figures, "palmas," carvings, images, etc., of Mexican and Peruvian origin.

A most interesting donation was a large collection of Inca and pre-Inca pottery and textiles brought together some years ago by Mr. Charles A. Pope, while residing in Peru, besides other ancient pottery and a stone ax from Colombia. Mr. Felix F. Outes, of Buenos Aires, presented 250 specimens of pottery and stone implements from Indian cemeteries and camping places in several districts of Argentina; while the Museo de la Plata forwarded, in exchange, a series of casts of South American stone objects, some with animal and other designs, elaborately worked out, forming striking examples of aboriginal art.

Three of the working models of the Langley aerodrome, all of which have made successful flights, were placed on exhibition in the east hall, devoted to technology, being suspended from the framework of the roof above the level of the tops of the cases. They have naturally attracted much attention.

The additions to the collection of watches and watch movements, both by gift and loan, have been many and interesting, acknowledgments being due to Mr. Frederick Leach, of New York; Mr. John Hansen and Mr. Carl A. Doubet, of Washington, and the Elgin National Watch Company. A sundial and gnomon cast in one piece, and bearing the date 1760, has been lent by Mr. W. F. Fisk, of Washington City.

To the War Department the Museum is greatly indebted for the deposit of numerous pieces of ordnance, among them having been two examples of the United States Army magazine rifle of the model of 1903, first issued to the Army in January, 1905; a Ferguson breech-loading rifle, formerly belonging to Gen. John Watts de Peyster, a type used by at least one of the British regiments in the War of the Revolution; a gatling gun of the pattern used by the United States Army about 1870; a number of projectiles, such as were employed between 1860 and 1870, and a collection of antique and obsolete cannon and mortars, military rifles, carbines, and revolvers, of many makes, captured from the Spaniards and insurgents in the Philippine Islands. Other firearms obtained through loan and gift were a Chinese four-man gun, 8 feet 10 inches long, from Col. W. H. Carter, U. S. Army; a rare double-barrel, 20-shot revolver, of Irish make,

from Mr. Ernst Moeckel, of Crookston, Minnesota; a pair of single-barrel pistols of very fine workmanship, made by Crawley & Co., London, from Capt. J. T. Ord, U. S. Army; a pair of fine English flintlock, silver-mounted pistols, captured during the War of the Revolution, from Dr. C. W. Hickman, of Augusta, Georgia, and a vest pocket pistol, from Mr. Paul Beckwith, of the National Museum.

The General Electric Company, of Harrison, New Jersey, donated a number of typical incandescent lamps, showing their development during the past ten years.

There have been several important additions to the collection illustrating telegraphic invention and development, through the courtesy of the Delaware and Hudson Company; the Western Union Telegraph Company; Mr. A. E. Roome, superintendent of telegraphs of the Southern Pacific Railroad; the U. S. Weather Bureau; Col. William A. Glassford, U. S. Army; Mr. Edward L. Morse, of Washington, District of Columbia, and Mrs. Columbia N. Payne, daughter of Capt. O. W. Berryman, U. S. Navy, who made the surveys between Newfoundland and Ireland for the first trans-Atlantic cable.

The division of graphic arts is chiefly indebted for its additions to the contributions of foreign exhibitors at the Louisiana Purchase Exposition, which are numerous and of great interest, but there has been no time as yet to classify and arrange them. The photographic section obtained two pictures taken by Daguerre.

Among the noteworthy accessions in ceramics were a very beautiful and typical collection of glassware, prepared especially for the Museum by Mr. Julian de Cordova, president of the Union Glass Works at Somerville, Massachusetts; a large green vase of Teco ware, of tasteful design and coloring, presented by the Gates Pottery Company, of Chicago; several specimens of the pottery made by the Van Briggle Pottery Company, of Colorado Springs; a collection of typical Japanese and Chinese porcelains and pottery and of Japanese lacquer work, lent by Mr. Harold I. Sewall, of Washington.

There were 13 accessions in the division of medicine, and the collection of musical instruments was increased by 15 accessions.

Of the 6 accessions in the division of historic religions, 1, consisting of 165 objects of Jewish ceremonial, deposited by Hadji Ephraim Benguiat, is especially noteworthy, both intrinsically and artistically. With the collections previously lent by the same well-known collector, the exhibit of Jewish ceremonial in the National Museum is now unrivaled in completeness and artistic merit.

The number of accessions to the collection of history amounted to 89, comprising 768 objects, mostly loans, many being of great value and interest. Among those especially worthy of mention are personal military relics of the late Maj. Gen. Judson Kilpatrick, U. S.

Army, from his widow and daughters; the uniform and articles of equipment of the late Alexander Macomb Mason (Bey), who, after serving in the navies of the Confederate States and Chile and the navy and army of Egypt, held high civil positions under the Khedive, from Mrs. M. B. Wheaton, of Washington; the silver-mounted sword of Gen. Simon Bolivar, of Venezuela, given to him in 1828, and a sword of Gen. José Antonio Paez, presented to him by King William IV of England, from Mr. José Antonio Paez, of Staten Island; the fatigue uniform coat and cap worn by Capt. Charles V. Gridley, U. S. Navy, at the battle of Manila, from Mrs. Gridley; many examples of the wearing apparel of the Colonial period in Maryland, from Miss Bayard Smith, of Baltimore; and a collection of early wearing apparel, arms, coins, and other objects, from Gen. John Watts De Peyster, of New York.

The Department of Biology as a whole received about 217,000 specimens, the principal increases as regards number of specimens being in the divisions of plants, insects, and mollusks, though in other divisions the additions were no less important.

The division of mammals received two collections from Dr. W. L. Abbott, the results of his own field work, the first consisting of 471 specimens, coming from the west coast of the Malay Peninsula and adjacent islands and the Mergui Archipelago, the second of 517 specimens from Banka, Billiton, and the Karimata Islands. They contain many species new to science. Next may be mentioned a collection presented by Dr. E. A. Mearns, U. S. Army, the product of his explorations in the Philippine Islands, chiefly on Mount Apo, in southern Mindanao, which is sufficiently elevated to support a fauna largely distinct from that of the remainder of the island, as may be inferred from the fact that a study of the material disclosed 6 new genera and 25 new species, which have been described by Doctor Mearns in the Proceedings of the Museum. Other noteworthy additions comprised specimens from Switzerland, France, and northern Italy, collected by Mr. Gerrit S. Miller, jr., and Dr. Leonhard Stejneger, of the Museum staff; from São Paulo, Brazil, through Mr. A. Hempel; from Japan, through exchange with Mr. T. Tsuchida; from the Kamerun district of west Africa, through Mr. G. L. Bates, and from Bewean Island, Java Sea, through Mr. C. G. Veth, American consular agent; a specimen of *Potamogale velox*, a rare African insectivore, through Dr. Paul Matschie, of the Royal Zoological Museum, Berlin; specimens from the Dismal Swamp, Virginia, and the Adirondack region of New York, collected by Dr. W. L. Ralph. Many important species have also been obtained from the National Zoological Park.

The additions in the division of birds comprised much of importance, due, as in the case of mammals, to the receipt of several col-

lections from especially interesting regions. Most prominent was a series of 615 Philippine birds presented by Dr. E. A. Mearns, U. S. Army, and obtained by him on the islands of Mindanao, Dinagat, Basilan, Cagayan Sulu, and Sulu, the most noteworthy specimens coming from Mount Apo. The collection as a whole contains probably three new genera, about 19 new species and subspecies, a number of topotypes, and several other forms not previously represented in the Museum. Doctor Mearns also brought 3 fine specimens of the Nicobar pigeon as a gift from Maj. Gen. Leonard Wood, U. S. Army, which the latter collected on an islet near Mindanao and prepared himself. The W. L. Abbott collections contained 316 specimens of birds obtained in the Mergui Archipelago and on the islands of Banka, Billiton, and Karimata, between Sumatra and Borneo, which add several rare species to the Museum series.

The Philippine Museum at Manila sent in exchange over 150 well-prepared skins, including topotypes of some recently discovered species. A specimen of the very rare Philippine monkey-eating eagle was presented by Mr. Fletcher L. Keller, and 2 specimens of the equally rare Celebes giant swift were given by Dr. Daniel G. Beebe. Mr. George A. Goss and Mr. H. D. Dodge, of Waterbury, Connecticut, donated a small collection from Mount Kinabalu, British North Borneo, consisting mainly of topotypes of species described within the last ten years and also containing one new species. Another small but choice collection obtained in the interior of China during a geological reconnoissance by Mr. Bailey Willis and Mr. Eliot Blackwelder, under the auspices of the Carnegie Institution, was contributed to the Museum.

A very important series of over 750 Costa Rican birds, contributed by the National Museum of that country, furnishes the curator, Mr. Robert Ridgway, with much desired material for his work on the Birds of North and Middle America. Mention should also be made of a collection of birds from Jamaica, obtained by Mr. W. R. Maxon, of the Museum staff, and one from South Carolina and New Hampshire, presented by Mr. Nathan Clifford Brown, of Portland, Maine. Mr. Homer Davenport, of Morris Plains, New Jersey, has generously continued to send specimens of rare pheasants, geese, etc. Among the specimens turned over by the National Zoological Park a California condor and a cassowary are especially noteworthy.

The additions to the section of birds' eggs, comprising 129 nests and 665 eggs, contained some interesting material, the most valuable coming from Mexico. The principal contributors were Dr. W. L. Ralph, Dr. E. A. Mearns, U. S. Army, Dr. J. C. Call, and the members of the Biological Survey of the Department of Agriculture.

The more important accessions in the division of reptiles were a collection of 561 specimens from Japan, Formosa, and adjacent

islands, containing several undescribed species and a large number new to the Museum, obtained through Mr. Alan Owston, of Yokohama; 584 specimens from the Philippine Islands, including 4 new species, presented by Dr. E. A. Mearns, U. S. Army; 33 specimens from the Malay Peninsula and adjacent islands, the gift of Dr. W. L. Abbott; specimens from China, collected by Mr. E. Blackwelder, and donated by the Carnegie Institution; from France and Switzerland, collected by Dr. Leonhard Stejneger and Mr. Gerrit S. Miller, jr.; from Jamaica, collected by Mr. W. R. Maxon; from Guatemala, collected by Mr. Maxon and Mr. Robert Hay; from California and Indiana, transferred by the U. S. Bureau of Fisheries; from Manitoba, presented by Mr. Ernest Thompson Seton; and from Louisiana, collected by Mr. Andrew Allison.

The division of fishes received by transfer from the U. S. Bureau of Fisheries a large amount of material of exceptional value, as follows: A collection from Samoan waters, made in 1902 by Dr. D. S. Jordan and Prof. V. L. Kellogg, of Leland Stanford Junior University, and containing the types of 100 new species; an extensive series of specimens from the explorations of the steamer *Albatross* in Hawaiian waters in 1901–2, including many deep-sea forms and the types and cotypes described; a great number of fishes resulting from investigations on the Pacific coast of North America from Bering Sea to California, and on the Atlantic coast from Nova Scotia to Florida. Type specimens from other localities were also received from the Bureau of Fisheries and from Prof. C. H. Gilbert, of Leland Stanford Junior University.

The Bureau of Fisheries was the largest single contributor to the division of mollusks, having transferred to the Museum, from the dredgings of the steamer *Albatross* on the coast of California in the spring of 1904, about 5,000 specimens, many of which are of special interest and value. Next may be mentioned an accession from the Biological Survey of the Department of Agriculture, consisting mainly of land and fresh-water shells from Texas, California, and Montana. Scientifically, the most important addition of the year was a series of about 1,500 specimens of Philippine shells from the collection of the late Herr Mollendorff, obtained by purchase, many of the species being cotypes. This acquisition will prove extremely useful in the future working up of material from the Philippine Islands, especially in view of the fact that many of Mollendorff's species were never figured and can, with difficulty, be identified from his descriptions. Among other noteworthy additions were about 400 marine mollusks collected in Alaska by Dr. T. W. Stanton, of the U. S. Geological Survey; about the same number of mollusks and brachiopods obtained in the same region many years ago by Dr. W. H. Dall, and comprising numerous types of species described in the Pro-

ceedings of the California Academy of Sciences; a small but interesting collection made in Central America by Dr. Edward Palmer, of the Department of Agriculture, containing a remarkable new genus, *Hendersonia*, and a number of new species; many nudibranchs from the coast of California, including 15 types of species recently described by the donor, Dr. M. F. McFarland, of Leland Stanford Junior University, in the Proceedings of the Biological Society of Washington; some 300 specimens of shells from the Philippine Islands, presented by Brig. Gen. A. W. Greely, U. S. Army. From Mr. Henry Suter, of Auckland, New Zealand, there was received a pair of *Trigonia margaritacea*, in alcohol, containing the soft parts well preserved; from Mr. W. Moss, of Ashton-under-Lyne, England, an interesting lot of small but attractive shells from the Loyalty and Lifu islands of the Indo-Pacific; and from Mr. and Mrs. T. S. Oldroyd and Mr. C. H. Hansen, a quantity of material from the coast of California.

While no single large collection was received during the year, yet the additions to the division of insects were as a whole of average importance, comprising between 34,000 and 35,000 specimens from many parts of the world. It would be impossible in this connection to adequately note the principal accessions, but among the more important gifts and exchanges may be mentioned: Hymenoptera, from Maj. C. G. Nurse, of Quetta, India, and the Museo de Ciencias Naturales, Madrid, Spain; Cuban parasitic Hymenoptera, from Dr. George Dimmock, of Springfield, Massachusetts; Cuban beetles, from E. A. Schwarz, of the Bureau of Entomology of the Department of Agriculture; types and cotypes of New Zealand Cicadidæ, from Dr. F. W. Goding, American consul at Newcastle, New South Wales, Australia; a collection of Chinese beetles, from Mr. Eliot Blackwelder; types of Lepidoptera, from Mr. W. D. Kearfott, of New Jersey; types and cotypes of bees, from Mr. J. C. Crawford, of the Bureau of Entomology; types and cotypes of Rhipiphoridæ, from Mr. W. D. Pierce, of the Bureau of Entomology; Orthoptera, from Mr. F. B. Isely, of Wichita, Kansas; and miscellaneous collections from Rev. Robert E. Brown, S. J., Manila; Prof. T. D. A. Cockerell, Boulder, Colorado; and Mr. A. N. Caudell, of the Bureau of Entomology.

The division of marine invertebrates received, through transfers from the U. S. Bureau of Fisheries, 300 lots of foraminifera from the region about the Hawaiian Islands, the basis of a report to the Bureau by Mr. Rufus M. Bagg, jr.; a duplicate set of the sea urchins obtained on the cruise of the steamer *Albatross* to the Panamic region in 1891, and described by Dr. Alexander Agassiz in the Memoirs of the Museum of Comparative Zoology; a large collection of crustaceans from the *Albatross* cruise of 1904 off the southern coast of California, which have been distributed to specialists for study, as noted under the head of "Researches," and the samples of ocean bottom taken on the same

cruise. Some of the principal smaller accessions were as follows: From the Museum of Natural History, Paris, France, 7 cotypes of species of crabs, chiefly of the family Potamonidæ described by Miss M. J. Rathbun, and cotypes of *Cambarus digueti* Bouvier, from Guanajuato, Mexico; from the Zoological Museum at Copenhagen, Denmark, 4 species of Sphæromidæ, a cotype of *Uca oerstedi* Rathbun, and a series of specimens, showing the different stages of growth of *Sergestes atlanticus* Milne Edwards; from the Museum of Comparative Zoology of Harvard University, 4 species of isopods new to the collections, 2 being cotypes of species described by Dr. Harriet Richardson; from Prof. A. E. Verrill, of Yale University, fragments of the type specimens of 5 species of corals described by him; from the University of Pennsylvania, types of *Tanais robustus* H. F. Moore; from the Carnegie Museum, cotypes of *Cambarus monongalensis* Ortmann; from Prof. James H. Stoller, of Union College, 2 species of isopods new to the collection; from Dr. E. A. Mearns, U. S. Army, specimens from the Philippine Islands; from Dr. W. L. Abbott, specimens from the Malay Peninsula; from the U. S. Biological Survey, crustaceans from Mexico and Texas.

To the helminthological collection were added 857 specimens, the most important accession consisting of a series of parasites from Egypt, sent by Prof. Arthur Looss, of the Medical School at Cairo.

The past year has been especially noteworthy as regards the increase of the collection in the division of plants, the additions having been very much greater than in any previous year in the history of the Museum, embracing 750 accessions and 143,690 specimens. The greater part of this increase was due to the acquisition of the very valuable herbarium of Capt. John Donnell Smith, of Baltimore, which alone contained 100,889 specimens from different regions, but chiefly from tropical America. This large and important collection, the work of many years in assembling, was most generously donated to the Smithsonian Institution by Captain Smith and now forms a part of the national collections. In connection with the plants, Captain Smith also presented his botanical library of about 1,600 volumes, as noted elsewhere. The next important contribution was by transfer from the U. S. Department of Agriculture of 13,965 specimens, 8,963 of these constituting the herbarium of the Bureau of Forestry. These specimens came from many parts of the United States including Alaska, and from Greenland, Canada, Mexico, Guatemala, Europe, and India. The U. S. Bureau of Fisheries transmitted several hundred plants obtained in Alaska, Indiana, and Tennessee. The other accessions contained representatives of the flora of many different countries, more especially of the United States, but their number and variety preclude an adequate account of them in this connection.

Some of the larger collections were from the Philippines and from Jamaica and other West Indian Islands, Mexico, Chile, and British Columbia. The principal gifts, in point of number of specimens, came from Dr. Edward L. Greene, Mr. William E. Safford, Mr. F. V. Coville, Mr. M. B. Waite, Mr. E. S. Steele, Mrs. L. H. Earll, Mrs. Laura O. Talbot and Mr. F. J. Tyler, all of Washington, D. C., and Dr. E. A. Mearns, U. S. Army.

The additions to the Department of Geology numbered 16,984 specimens, of which 16,231 were paleontological. The division of systematic and applied geology acquired by gift through the Louisiana Purchase Exposition an important series of ores of nonmetallic minerals from Brazil, a large collection of tin, copper, and gold ores from Siam, a fine series of crude and refined graphite from Ceylon, a large pedestal of Thessalian marble from the Verde Antico Marble Company of London, and a quantity of economic products from the State commissions of Colorado, Kentucky, Alabama, and New Mexico. A collection of rocks and ores from New Zealand was obtained in exchange from the Waihi School of Mines at Auckland. Mention may also be made of five large masses of zinc ores from Arkansas, five large slabs of onyx marble from Arizona and Wyoming, a large block of serpentine with veins of asbestos from Canada, a nugget of native copper with native silver from upper Michigan, a fine specimen of Alaskan tin ore, large masses of selenite and gypsum from Oklahoma, and of bauxite from Arkansas, a block of diatomaceous earth measuring 40 cubic feet from California, a large quantity of coquina from Florida, rocks of the Silverton quadrangle, Colorado, through the U. S. Geological Survey, and a nearly complete cone of a hot spring from southern Wyoming.

To the division of mineralogy, Dr. W. S. Disbrow, of Newark, New Jersey, contributed a fine series of zeolites from New Jersey, as did also Dr. W. F. Hillebrand, of the U. S. Geological Survey. Other interesting additions of minerals consisted of specimens of pyrite with dodecahedral faces, and one of datolite from Westfield, Massachusetts; examples of the recently discovered thorianite; a fine beryl of unusual form and color from Utah, an exceptionally large nodule of josephinite, molybdenite from Cooper, Maine, and tourmalines from southern California. One meteorite of iron from Rodeo, Mexico, was received, and the following cut gems purchased for the Louisiana Purchase Exposition have been added to the Museum exhibition series: Australian matrix opals, California tourmalines, beryls from Connecticut, a fine specimen of peridotite from Arizona and a deep colored amethyst from North Carolina.

The collections of fossil invertebrates in the division of stratigraphic paleontology were mainly increased through transfers from

the U. S. Geological Survey, which consisted principally of large collections of Niagaran fossils from Tennessee, of Ordovician fossils from the slates at Arvonia, Virginia, and of Devonian and Carboniferous fossils from Colorado, the last collection having served as the basis of Dr. George H. Girty's work on the Carboniferous formations and faunas of that State. A very valuable acquisition was the gift by Mr. E. O. Ulrich and Dr. R. S. Bassler of the type and figured specimens of 65 species, 25 being of Paleozoic origin and 40 Tertiary ostracoda. Among other important additions were 400 specimens of Cretaceous bryozoans from Denmark; about 70 species of corals from Germany; a series of European Tertiary fossils; Cretaceous and Tertiary fossils from South Carolina; Ordovician fossils from Kentucky, and the reverse side of the types of 8 species of fossil insects from Mazon Creek, Illinois.

The section of vertebrate paleontology received two large collections from the U. S. Geological Survey, one made in the Wasatch Eocene of the Big Horn Basin, Wyoming, by Mr. C. A. Fisher, and containing remains of *Coryphodon*, *Phenacodus*, *Eohippus*, *Crocodilus*, and *Oxyæna;* the other from the Oligocene of Oelrichs, South Dakota, and including remains of *Merycoidodon*, *Hyracodon*, *Daphænus*, a Cameloid, *Canopus*, *Titanotherium*, etc. Mr. A. G. Maddren, who visited Alaska on behalf of the Smithsonian Institution during the summer of 1904, brought back from the Yukon basin a collection of Pleistocene fossils, comprising the bones and teeth of *Elephas primogenius* and of two extinct species of both the bison and the horse. Among other noteworthy material received were remains of *Triceratops* from Elephant Butte, New Mexico, and from the collection at Yale University; and fossil fishes from Pennsylvania, Wyoming, and Brazil.

In the section of paleobotany the most important additions were about 400 specimens from the States of São Paulo and Santa Catharina, Brazil, collected by Mr. I. C. White during an official exploration of the Brazilian coal fields, and presented by him to the National Museum; about the same number of specimens from the higher beds of the anthracite series in the vicinity of Pottsville, Pennsylvania, from Mr. C. W. Unger, of Pottsville; 70 specimens, including 9 new species obtained from the Upper Eocene at Kukak Bay, Alaska, by the E. W. Harriman expedition of 1889.

The approximate number of specimens received by the Museum during the year, and the total number in the possession of the Museum at the close of the year, are recorded in the following table:

Department.	Number of specimens received in 1904–5.	Total.
Anthropology:		
Ethnology	5,542	485,998
Historic archeology	65	2,403
Historic religions	170	2,939
Prehistoric archeology	3,074	390,529
Technology	371	32,390
Graphic arts	415	9,311
Medicine [a]	[b] 13	5,016
History	768	44,708
Physical anthropology	196	5,340
Ceramics	216	4,828
Photography	8	1,836
Music	[b] 24	1,666
Biology:		
Mammals	2,008	[c] 86,653
Birds	4,652	140,878
Birds' eggs	793	65,923
Reptiles and batrachians	[b] 1,763	[c] 48,496
Fishes	5,295	[c] 166,796
Mollusks	16,194	[c] 978,849
Insects	37,684	1,620,321
Marine invertebrates	4,537	525,728
Helminthology	[b] 857	[c] 6,751
Comparative anatomy	[b] 65	16,696
Plants	143,690	[c] 751,895
Forestry		749
Geology:		
Physical and chemical	[b] 381	[c] 80,657
Mineralogy	372	37,270
Invertebrate paleontology	[c] 15,000	627,964
Vertebrate paleontology	[b] 231	
Paleobotany	[c] 1,000	
Total	245,384	6,141,990

[a] 1,887 specimens rejected as worthless from total of last year.
[b] Catalogue entries.
[c] Estimated.

The number of entries made in the catalogue books of the various departments was 33,123.

The number of accessions received annually since 1881 is as follows:

Year.	Accession Nos. (inclusive).	Number of accessions during the year.
1881	9890-11000	1,111
1882	11001-12500	1,500
1883	12501-13900	1,400
1884	13901-15550	1,650
1885 (January to June)	15551-16208	658
1886	16209-17704	1,496
1887	17705-19350	1,646
1888	19351-20831	1,481
1889	20832-22178	1,347
1890	22179-23340	1,162
1891	23341-24527	1,187
1892	24528-25884	1,357
1893	25885-27150	1,266
1894	27151-28311	1,161
1895	28312-29534	1,228
1896	29535-30833	1,299
1897	30834-32300	1,467
1898	32301-33741	1,441
1899	33742-35238	1,497
1900	35239-36705	1,467
1901	36706-38175	1,470
1902	38176-39584	1,409
1903	39585-41227	1,648
1904	41228-42930	1,703
1905	42931-44622	1,692

GENERAL WORK UPON THE COLLECTIONS.

It is difficult to differentiate between the several classes of work upon the collections since they gradate one into the other. The subjects of classification or research and the installation of the exhibition series are treated of under their respective headings. This chapter relates to the general care of the collections, the preparation and preservation of specimens, their arrangement in reference or study series and in safe storage, their labeling, recording and cataloguing, the sorting out and packing of duplicates, all of which involve an endless amount of patient labor.

Of the reserve collections in the two main buildings it may be said that, in a general way, they are in as fair and safe condition as the circumstances permit. In large part they are moderately easy of access, but the quarters in which they are stored are mostly crude, antiquated and dark, very inconvenient and very greatly overcrowded. It is, however, to be remembered that for a very large proportion of the national collections there is no room in the main buildings, and they have to be packed away in several insecure rented structures, which are already filled to the roof timbers and so compactly that no particular object could be found or removed.

Each lot of specimens as received is accessioned, and its contents are distributed to the several divisions to which they belong and in which they are subsequently cared for. They are cleaned and poisoned, if need be, and are catalogued chronologically under successive numbers, by which, combined with appropriate labels, they may always be identified and their history ascertained. After they have been studied and classified they are entered on catalogue cards, arranged in systematic order so as to constitute a descriptive list of the objects in each class, the basis of future research. This work progresses steadily in all the divisions, and naturally consumes a great deal of time.

The above illustrates the processes with new collections, and their incorporation in the several series to which they belong. But there is another branch of work, equally necessary and fully as arduous, the maintenance of the collections, now grown to proportions far beyond the facilities for their accommodation. All of the several millions of specimens except those in general storage, are expected to be examined at least once a year to insure their continued safety. Alcohol is added to the jars and vials to replace that lost by evaporation, dried specimens are cleaned of insect pests, which are ever present, and a general house-cleaning takes place to remove the dust, dirt, and dampness which everywhere accumulate. This relates to practically all of the divisions, though with some kinds of collections the difficulty is much greater than with others. Following are some of the principal items of work under this heading:

Probably in no former year have the reserve collections in the Department of Anthropology been so thoroughly overhauled and renovated. The collections in the extensive series of drawers in Eskimo hall have been entirely rearranged in systematic order, and a finding catalogue of their contents has been prepared. A large number of cupboards and frames with drawers have been installed above the wall exhibition cases in the Pueblo court for the storage of ethnological objects; the storage accommodations in the graphic arts court have been extended for the keeping of the Philippine collection, and the storage cases on the west balcony, with their contents, have been greatly improved.

In the recently established division of physical anthropology there has been great activity, owing to the many accessions, and the necessity of overhauling the old collection, which had not for some years been given supervision. The material belonging to this division is of such a character as to require much attention, in the cleaning of skeletons and crania, and the liquid preparation of the soft parts of the body. The quarters assigned for laboratory and storage purposes are altogether too small, and only by close crowding can the material already on hand be accommodated in the cases.

A gallery has been built and partly fitted up in the west-north range for the storage of historical material, and the extensive collection of portraits is now in process of arrangement and classification. The study series in graphic arts has been transferred to unit drawers and is also being rearranged and catalogued.

In the division of mammals 15 quarter unit cases were added for the storage of small skins, but a larger number will soon be required to properly arrange this class of objects, and also the larger skins, many of which are now kept in ordinary boxes. The collection of mammal skulls comprises many thousands of specimens, for which the accommodations have been very crude and inadequate. The rearrangement of the large skulls, mentioned in last year's report, and of a majority of the small ones, has been completed. New cases have been provided for skulls of medium size, and before the close of another year all of the material of this character now on hand should be in excellent order for reference.

The work of cleaning skulls, which requires much dexterity and patience, has been done mainly by contract instead of the employment of a preparator for the purpose. The new method has proved much more economical and will be continued. The number cleaned was 9,595 as compared with 6,760 during the previous year. The entire collection of skulls was numbered and labeled.

Sixty-eight large and medium mammal skins for the reserve series were tanned by contract. The taxidermist attached to the division made over about 60 small skins, which had been deteriorating, besides skinning 57 fresh mammals, making up a large number of flat skins, and cleaning and repairing 78 mounted heads belonging to the exhibition series. After extended experimentation a large tank was successfully constructed for extracting grease from skeletons by the use of naphtha and steam. It has been installed in the Zoological Park, in a place not resorted to by visitors.

All the bird skins received during the year were catalogued, labeled, and distributed to their proper places in the study series, and the rearrangement of the birds of prey was nearly completed. The quarters occupied by this division for laboratory and storage are now especially overcrowded. The very extensive series of birds' eggs has been kept in excellent condition.

The collection of reptiles and batrachians has for some time been undergoing a systematic rearrangement in order to make the specimens more accessible, and the entire study series is in a good state of preservation.

In the division of fishes the majority of the large accessions was catalogued and much material labeled and installed. Four large zinc-lined tanks, of a special pattern, were constructed for the larger fishes, and to these were transferred the contents of seven barrels,

besides many specimens from the smaller tanks. Twenty-five sets of duplicates, each comprising 60 specimens, were put up for distribution to educational establishments. A card catalogue of the contents of the many tanks of fishes is in course of preparation.

The many accessions in mollusks required much attention from the assistants in this division in sorting, labeling, and cataloguing the specimens. About 9,000 entries were made. A part of the land-shell collection was rearranged in accordance with modern classification.

In the division of insects much progress was made in the arrangement of all the orders, except the Rhynchota and a few minor orders.

A special cataloguer was employed in the division of marine invertebrates for preparing the systematic card catalogue of crustaceans recently identified, the Hawaiian corals from the explorations of the Bureau of Fisheries, the sea urchins from the cruise of 1891 of the Fisheries steamer *Albatross*, identified by Dr. Alexander Agassiz, and a large part of the sertularian hydroids, identified by Prof. C. C. Nutting. A number of improvements were made in the laboratory equipment. The rack system of installing specimens was adopted for the entire study series of the helminthological collections. This system has been shown by experience to make the specimens readily accessible and to permit the employment of unskilled persons in putting specimens in place. Seven hundred bottle racks were purchased for this purpose, and a number of Marlatt slide cases were also obtained for the microscopic mountings.

In the division of plants 50 standard herbarium cases, 12 half-unit cases, and 15 special cases were added during the year. The entire set of cases now comprises 10,043 compartments or pigeonholes for the storage of mounted plants. With the exception of a portion of the lower cryptogams, the entire herbarium is now in insect-proof cases, and little trouble has been experienced during the year from plant pests. Herbarium sheets to the number of 28,088 were stamped and incorporated in the regular series, making the total number so treated since 1894, 274,475. Prior to their incorporation all plants are registered in the regular chronological catalogue books, of which there are now 72, 39 being filled and 33 still open. The specimens currently received are still entered geographically, all Mexican plants being in a separate volume, all Alaskan in another, etc. This was impracticable for the older, unentered parts of the herbarium, which are grouped by families. The number of plants mounted, partly by contract, partly by preparators, was 22,327. During the year the rearrangement of the herbarium in accordance with the system of Engler and Prantl progressed from family 246, Gentianaceæ, to family 266, Acanthaceæ.

The reserve collections in all the divisions of the Department of Geology are in fair condition, though the systematic card catalogues are still incomplete. In the division of geology proper the collection

has grown so large that there is no longer storage space for it except in gross, in packing boxes, in unsafe buildings. In this division during the year over 3,550 specimens have been trimmed, labeled, and wrapped for the educational series of duplicates.

In the division of stratigraphic paleontology the collections have heretofore been divided into an exhibition and a study or stratigraphic series. The stratigraphic series, in which the faunas of particular horizons and regions are kept together, is naturally incomplete, but growing rapidly. With the purchase of the Ulrich and Rominger collections it was decided to inaugurate a new series with these two collections as a basis, one in which the various groups of invertebrate fossils were arranged biologically. Up to the time of his resignation, September 1, Mr. Charles Schuchert, assistant curator of the division, was mainly occupied in the preparation of school collections and in duties connected with the Louisiana Purchase Exposition. For the school collections over 60,000 specimens were used, and made up into 500 sets, some of which have already been sent out.

Mr. R. S. Bassler succeeded Mr. Schuchert, and during four months was occupied with the preparation, editing, and proof reading of the Bulletin on the type specimens in the collection. This also required the labeling and placing in final museum condition of the types of over 1,000 species of invertebrate fossils, represented by over 5,000 specimens. Besides putting into final shape the various accessions of the year, all of the pelecypods and a considerable portion of the gastropods and brachipods of the biologic series have been registered, labeled, and numbered. They occupy 45 standard drawers and comprise 2,234 species, represented by 16,710 specimens. The number of cards added to the systematic catalogue was 1,500. Thirty-four boxes of unstudied material were removed from storage and their contents classified and properly arranged.

In the section of vertebrate paleontology a very satisfactory advance has been made in the appointment of two preparators and one assistant preparator, whose work has resulted in the completion of the mount of the skeleton of Triceratops, the first one ever prepared, and one of the most conspicuous additions to the exhibition series. A large amount of material stored in boxes has been overhauled and the collection partly systematized.

The principal work in paleobotany has consisted in cleaning, assorting, and systematizing the collection, and in preparing card and type catalogues.

THE EXHIBITION COLLECTIONS.

A part of the Polynesian collection of ethnology, obtained mainly during early expeditions, which has been on exhibition in the north gallery of the west hall, was removed to one of the laboratories for study and fuller identification, and in its place was installed a large

representation from the Malaysian ethnological collection of Dr. W. L. Abbott, and the Philippine collection of Dr. E. A. Mearns, U. S. Army. The collection of basketry was rearranged, and eight recently prepared busts of Indians and some exceptionally fine examples of the work of the Northwest coast Indians have been placed on exhibition. The latter consist of two large totem posts, four large carved wooden slabs, and a large painted room partition from Alaska. The exhibits returned from the Louisiana Purchase Exposition were, as far as possible, assigned places in the public halls, though it was necessary to put most of this material in storage.

To the exhibition of historic archeology, which chiefly occupies the eastern end of the west hall, were added a collection of Biblical gems, coins of Bible lands, the oriental manuscripts of Mr. S. S. Howland, a Greco-Egyptian portrait of great interest, and several papyri. In consequence of the addition of many articles of Jewish religious ceremonial, through the valuable deposit made by Mr. Benguiat, the entire section included under this subject was rearranged, as was also the adjoining Mohammedan section. Additions involving changes in arrangement were also made to the Greco-Roman and Buddhist sections, and the display of amulets was reinstalled.

Following the extensive repairs recently made in archeological hall the entire exhibition collection of prehistoric archeology is being subjected to a thorough overhauling, which is not yet completed, and the hall is therefore still closed to the public. It is proposed to make this exhibit as attractive as it is valuable and interesting, though it must for a time remain chiefly in the old-fashioned cases constructed over thirty years ago. The many stone mortars and soapstone vessels from California and the stone chairs from Ecuador have been arranged on the tops of the wall cases. Recent accessions from Mexico and Central America have replaced the collections from the ancient ruined pueblos of Arizona and New Mexico, which have been removed to the Museum building. Of six new cases installed in the center of the hall, four are devoted to casts of large stone sculptures from Mexico and the other two to material from Brazil and the West Indies.

Lack of space has made it impossible to develop an exhibition series in physical anthropology, but there are now ready for this purpose 10 complete Indian busts, over 20 masks from which busts can be prepared, and photographs and skeletal material for representing all anthropological varieties.

The exhibits in technology have been greatly enlarged and improved, requiring the addition of a number of cases. The most noteworthy increases and changes have been in the sections of electrical apparatus, firearms, and railroad appliances. The historical collection of railroad locomotive models was entirely rearranged. No

changes were made in the hall devoted to the graphic arts, but in the gallery of ceramics the collection of purely artistic ware in porcelain, glass, lacquer, and metal work was arranged by countries in a series of separate cases along the west side and the inner edge of the gallery.

The historical collection which occupies the north hall has been maintained in good condition, the principal addition being a case assigned to the National Society of the Dames of 1846 for the exhibition mainly of relics of the war with Mexico.

The most conspicuous additions to the exhibition collections in the Department of Biology resulted from the Louisiana Purchase Exposition. This was especially the case in regard to the mammals, of which specimens of several large and interesting species hitherto either unrepresented or only poorly so in the Museum halls, were prepared for St. Louis in accordance with the latest advances in taxidermy and the preparator's art. Their transfer to Washington unfortunately found the mammal hall so overcrowded that many could be given only a temporary position, and for the most part without cases. The new additions consist of a polar bear, black bear, giraffe, hippopotamus, zebra, gnu, musk ox, Sandbur stag, Olympic elk, and the cast of a sulphur-bottom whale. The great amount of labor entailed in securing and preparing the last mentioned object has been referred to in a previous report, and it may be stated that the result has much more than justified the effort. The whale, about 80 feet long, was grounded at a whaling station on the coast of Newfoundland, where a sectional mold was made of the exterior of the body and the entire skeleton removed. The cast, appropriately colored, is now suspended from steel trusses connected with the framework of the roof in the mammal hall. The skeleton was at the close of the year being installed in the adjoining hall of osteology.

Besides the above, 35 mammals, mounted by the taxidermists of the Museum, were added to the exhibition collection. They consisted, besides a tiger, chiefly of rodents and other small forms from the African, Oriental, and Palearctic regions, including such important species as the large aquatic African insectivore, *Potamogale*, the Tasmanian marsupial wolf, *Thylacinus*, the jerboa, dormouse, marmot, Philippine Island rats, paradoxure, ermine, Java porcupine, etc. The South American forms comprised a paca, capabara, and aguto. All of these specimens were mounted separately, but chiefly with some indication of natural environment. The collection of heads of East African antelopes, on deposit from the Hon. William Astor Chanler, and other smaller heads placed with them, were thoroughly cleaned and repoisoned, and the panel to which they are attached was extended the entire length of the east gallery. The contents of the large east wall case were partly rearranged, and many temporary bases on which the specimens were mounted were replaced by permanent ones.

The birds exhibited at St. Louis, mostly taken from the regular Museum series, were returned to their proper places, and the collection of game birds, which now includes 10 groups, was reinstalled. Many specimens of valuable species which had been mounted long ago were also made over with very satisfactory results.

In the range devoted to reptiles and fishes a few interesting additions were made from the Museum exhibit prepared for St. Louis. They consist of casts of snakes, among the larger forms represented being the python, rattlesnake, and boa, in special cases, and a fine set of models of deep-sea fishes.

The American faunal exhibit of insects was nearly completed during the year, but the series of Lepidoptera shown at St. Louis and intended to be placed in the insect hall has been withheld from exhibition pending experiments looking to some provision for protecting their colors. The synoptic series of marine invertebrates, enlarged and improved for use at St. Louis, has been returned to its place in the west hall of the Smithsonian building.

In the biological exhibit as a whole many new and revised labels, both for the specimens and the cases, were prepared and installed.

In the hall devoted to systematic and applied geology a number of large pieces of interesting rocks and ores, obtained at the St. Louis Exposition, were added to the exhibition collection. The wall cases in the mineral hall were repainted and their contents, including the specimens of meteorites, were rearranged. The larger meteorites were also supplied with new descriptive labels. Lack of space prevents any material increase in the exhibit of invertebrate fossils, but the hall of vertebrate paleontology has received a most noteworthy addition in a complete skeleton of *Triceratops prorsus*, one of the large Dinosaurian reptiles of the Cretaceous period of the Western States. This is the first preparation of this form yet made, and consists chiefly of the actual bones of the most complete specimen in the collection, supplemented by pieces from other specimens and by restorations in plaster. The skeleton measures 19 feet 8 inches in extreme length by 8 feet 2 inches high, and is mounted on a base of artificial matrix designed to represent the color and texture of the Laramie sandstone in which the remains of this animal are found. This unique and striking object is certain to attract very widespread attention.

RESEARCHES.

The systematic classification and arrangement of the collections which are so rapidly increasing from year to year demand a very large amount of scientific study and research, which the caretakers are expected to be qualified to carry on. The present staff is wholly inadequate in numbers to accomplish all that is required in this

direction, especially since its time must be chiefly occupied in providing for the safety of the collections, in maintaining the exhibition series, and in other routine and administrative duties. The research work accomplished each year has, however, always been creditable, both in amount and character, and during the past year it was especially noteworthy in several particulars. Much assistance has also been received at all times from outside, and a large proportion of the classificatory results have been secured through this means, specialists both in this country and abroad gladly taking advantage of the opportunity to advance their studies through the new material placed at their disposal. The researches of the year may be briefly summarized as follows:

Doctor Hough has about completed a comprehensive report on the Hopi Indians of Arizona, based upon several years' experience among these interesting people. He has also begun upon a detailed study of the Pueblo material with which the Museum is very richly supplied, has continued his studies upon the primitive uses of fire, and has nearly finished a paper on the manufacture of pulque and palm wine. Of persons not connected with the Museum who made use of the collections in ethnology were Mr. Ole Solberg, of Christiania, Norway, who spent some time in photographing the stone implements of Alaska for comparison with similar implements of the Eastern Eskimo preserved at Copenhagen; Mr. W. F. Andrews, of the U. S. Bureau of Immigration, and Mr. Charles S. Sloane, of the U. S. Census Office, who conducted inquiries to aid in the classification of immigrants entering the United States; Mrs. W. Markland Molson, of Montreal, who studied the imbricated basketry of the State of Washington and British Columbia, with the object of definitely locating the large collections by tribes, and Mr. George Iles, of New York, who investigated the subject of survivals in invention.

The collections in prehistoric archeology were extensively consulted by Dr. J. W. Fewkes, of the Bureau of American Ethnology, who has in preparation a report upon his recent explorations in the West Indian region.

Dr. Aleš Hrdlička, assistant curator in charge of the division of physical anthropology, conducted investigations on the weight of the brain in man and animals, the behavior of the brains of mammals in various preserving solutions, the California mainland crania in the Museum collection, and the cranial fossæ. A number of visiting Indians were also measured at the laboratory.

In the preparation of the important work entitled "Handbook of the Indians," soon to be issued by the Bureau of American Ethnology, very material assistance was rendered by several members of the Museum staff, especially Prof. O. T. Mason, Dr. Walter Hough, and Dr. Aleš Hrdlička. The Museum collections were also utilized

by others in the same connection, as the basis both for descriptive matter and for illustrations.

A description of the Howland collection of Buddhist religious art was prepared by Dr. I. M. Casanowicz, assistant curator of historic religions, and a catalogue of the collection of Grant relics, by Mr. Paul Beckwith, assistant curator of history.

Mr. George C. Maynard, assistant curator of technology, continued his inquiries relative to early steam railroading in the United States, paying most attention to the historic locomotive Stourbridge Lion, which was brought to this country near the end of the third decade of the last century, and of which the principal parts are now preserved in the National Museum. Important records concerning this engine were obtained from several sources, but mainly from the Delaware and Hudson Company of New York, whose pioneer efforts in introducing and establishing steam railroads are being worked up by Mr. Maynard as a contribution to this interesting subject.

A new genus and species of sea lion, based upon a fossil skull from Oregon, was the subject of a paper by Dr. F. W. True, head curator of biology, who has also begun upon a revision of the American species of fossil cetaceans, of which he collected many specimens in Maryland during the year, and an account of the Museum collection of ziphioid whales.

The assistant curator of the division of mammals, Mr. Gerrit S. Miller, jr., spent most of the year in Europe, mainly at the natural history museums of Paris, Berlin, and Leiden, and the British Museum in London, where he accomplished very important results in the direction of completing his work upon several large collections of the National Museum, which could not have been properly studied in any other way. The foreign museums named are very rich in type specimens from the Malayan and other Asiatic regions and from South America, with which it was desired to make comparisons, especially in regard to the extensive East Indian collections contributed by Dr. W. L. Abbott and to recently acquired material from tropical America. These investigations have greatly advanced the position of the National Museum as a place of research respecting oriental and other exotic mammals through the authenticity thus given to their classification.

Besides his general work on the Abbott collections, not yet in final shape for printing, Mr. Miller prepared revisions of the Malayan tree-shrews, chevrotains, and squirrels, and a key to the genera of Viverridæ and the civet family. He also completed a new classification of bats, which has been in progress for two or three years, keys to all the genera being rewritten and diagnoses of nearly 60 species prepared, and a revision of the South American free-tailed bats. While at Leiden Mr. Miller studied the principal museums

there and made an important report upon their buildings, installation, and administration.

A study of the bats of the genera *Glossophaga* and *Hemiderma* was begun by Mr. Walter L. Hahn, aid in the division of mammals.

The collections in this division were utilized by the Biological Survey of the U. S. Department of Agriculture, and specimens were lent for study to Mr. Knud Andersen, of the British Museum; Dr. Paul Matschie and Dr. M. Hilzheimer, of the Royal Zoological Museum, Berlin; M. Charles Mottaz, of Geneva, Switzerland; Dr. C. I. Forsyth Major, of the British Museum, London; Mr. Glover M. Allen, of the Boston Society of Natural History; Mr. Outram Bangs, of Boston; Prof. F. W. Putnam, of the Peabody Museum of Harvard University; Dr. John M. Ingersoll, of Cleveland, Ohio; and Dr. Franklin P. Mall, of Johns Hopkins University.

Dr. E. A. Mearns, U. S. Army, on sick leave from the Philippines, spent about four and one-half months in this division, working up the material obtained by himself in those islands and completing the first part of his report on the mammals collected on the Mexican Boundary Survey.

Volume 3 of Bulletin No. 50, entitled the Birds of North and Middle America, by Mr. Robert Ridgway, curator of birds, was completed and published during the year, and about one-half of the manuscript for volume 4 was finished. The latter volume will comprise the families of thrushes, mocking birds, starlings, weaver birds, jarks, sharp bills, tyrant flycatchers, manakins, and chatterers. Mr. Ridgway also published descriptions of new species of birds from tropical America. During his visit to Costa Rica, elsewhere referred to, he made extensive studies on the collection of birds in the National Museum of that country, the results of which will be embodied in his work.

The assistant curator of birds, Dr. Charles W. Richmond, continued the study and determination of the birds collected by Dr. W. L. Abbott on several islands off the west coast of Sumatra, and added several thousand cards to the general catalogue of genera and species of birds for reference purposes in the division. Three papers by him on nomenclature and a description of a swiftlet were published during the year. Mr. J. H. Riley, aid in the division of birds, was mainly employed in making measurements of specimens and compiling references for the use of the curator, but he also reported on a collection of birds from the islands of Antigua and Barbuda and on the birds of the Bahama Islands, the latter while serving as an assistant on the expedition of the Geographical Society of Baltimore. Mr. H. C. Oberholser, of the Biological Survey, completed studies on the birds obtained by Dr. W. L. Abbott in Kilimanjaro, East Africa, and has

taken up other collections made by Doctor Abbott on islands in the China Sea and neighboring regions.

The collections and opportunities for research offered by the division of birds were utilized by the Biological Survey, the committee on nomenclature of the Ornithologists Union, Dr. Jonathan Dwight, jr., of New York, and Dr. E. A. Mearns, U. S. Army, the last mentioned giving much time to the identification of the Philippine birds of his own collecting. Among those to whom specimens were sent for study were Dr. J. A. Allen and Mr. Frank M. Chapman, of the American Museum of Natural History; Mr. Herbert O. Jenkins, of Leland Stanford Junior University, and Dr. Louis Bishop, of New Haven, Connecticut.

Mr. Barton A. Bean, assistant curator of the division of fishes, identified the collection of fishes made by himself and others in Beaufort Harbor, North Carolina, in 1904; prepared papers on the history of the whale shark (*Rhinodon*) and the adult of the goblin shark (*Mitsukurina*), and, conjointly with Dr. C. H. Eigenmann, of Indiana University, worked up the collection of Amazon River fishes made by Prof. J. B. Steere in 1901. The specimens of Characins belonging to the Museum and the small collection of fishes obtained in Patagonia some time since by the late Mr. J. B. Hatcher were turned over to Doctor Eigenmann for study and report. A number of specimens in several groups of fishes were sent to Leland Stanford Junior University for examination by Dr. C. H. Gilbert, Dr. J. C. Thompson, and Mr. E. C. Starks. Among many experts who have worked upon the collections of fishes in the Museum may be mentioned Dr Theodore N. Gill, an associate of the Museum; Dr. B. W. Evermann and Dr. W. C. Kendall, of the Bureau of Fisheries; Dr. T. H. Bean, and Mr. E. W. Gudger, of the State Normal School, Greensboro, North Carolina. The investigations of Doctor Evermann had reference mainly to the preparation of a joint report with Dr. D. S. Jordan on the fishes of Hawaii. Dr. C. H. Gilbert came to the Museum in June, 1905, with the expectation of remaining through the summer, for the purpose of working up the Pacific deep-sea fishes represented in the collection.

Dr. William H. Ashmead, assistant curator of the division of insects, has been mainly occupied in finishing his work on the superfamily Formicoidea, or ants, with which will be completed his classification of the entire order Hymenoptera. His monograph on the North American Braconidæ, on which he has been engaged for a number of years past, will next be taken up for completion. Mr. D. W. Coquillett, custodian of the Diptera, has spent much time in the preparation of a monograph of the North American mosquitoes (Culicidæ). More than forty papers by members of the staff of this division were published during the year. Specimens represent

ing several groups of insects have been sent for study to a number of persons, including Sir George Hampson, of the British Museum, London; Mr. W. D. Kearfott, and Prof. Raymond Osburn, of New York City; Mr. Charles Schaeffer, of the Museum of the Brooklyn Institute; Mr. J. F. McClendon, of the University of Pennsylvania; Prof. A. D. MacGillivray, of Cornell University; Mr. W. A. Hooker, of Amherst, Massachusetts; Mr. Frederick Blanchard, of Tyngsboro, Massachusetts; Mr. E. C. Van Duzee, of Buffalo, New York, and Prof. H. C. Fall, of Pasadena, California.

The revision of the land and fresh-water shells of North America north of latitude 49°, by Dr. W. H. Dall, curator of mollusks, mentioned in the last report, was completed and in type at the close of the year, forming a paper of about 200 pages with two plates in the series of the Harriman Alaska Expedition. Among other papers finished by the same author were a review of the classification of the American Cyclostomatidæ, printed in the Proceedings of the Malacological Society of London, and reports on land and fresh-water shells collected in the Bahamas by Mr. Owen Bryant and on land shells obtained in central Mexico by Dr. Edward Palmer, printed in the Quarterly Issue of the Smithsonian Miscellaneous Collections.

Work stated by Dr. Dall to be nearing completion includes the extensive report on the Pyramidellidæ, begun some time ago, in joint authorship with Dr. Paul Bartsch; a paper on certain exotic Pyramidellidæ lent by the Zoological Museum at Berlin, Germany, and reports on the mollusca collected by the Bureau of Fisheries steamer *Albatross* at the Hawaiian Islands and on the voyage of 1905 to the southern Pacific Ocean under the direction of Dr. Alexander Agassiz. The total number of papers on recent mollusks published during the year by Dr. Dall was 12 and by Doctor Bartsch 4. Mr. Ralph Arnold has continued his studies on the Pectinidæ. In June, 1905, Doctor Bartsch visited Detroit, Michigan, and New Philadelphia, Ohio, for the purpose of consulting the large collection of Mr. Bryant Walker at the former place and that of Dr. V. Sterki at the latter. Both of these gentlemen have offered to furnish specimens for filling gaps in the Museum collection.

The studies of Dr. James E. Benedict, assistant curator of marine invertebrates, on the Anomuran crustaceans were interrupted by his assignment to duties in connection with the Louisiana Purchase and the Lewis and Clark expositions. Miss M. J. Rathbun, also assistant curator, prepared for the Bureau of Fisheries a comprehensive report on the Brachyuran and Macruran crustaceans of Hawaii, containing descriptions of 80 new species, illustrated with 24 plates and 78 text figures, and a report on the specimens of the same groups obtained during the Alaska salmon investigations of 1903. She continued her investigations on the fresh-water crabs

(Potamonidæ), based mainly upon the collection of the Natural History Museum of Paris, the results being incorporated in the second part of her monograph, which is being published by that museum. She also described a new species of *Pinnotheres* from the collection of the Academy of Natural Sciences, Philadelphia, and published three other short papers.

Dr. Harriet Richardson, collaborator, reported upon the Isopod crustaceans from Alaskan explorations of the Bureau of Fisheries, has nearly completed a manual of all the North American forms of this group, containing descriptions and figures of each species, and has prepared descriptions of a new genus and two new species of Tanaidæ and of a new *Livonæa* from Panama. Dr. T. Wayland Vaughan, custodain, has continued his studies upon the collection of living stony corals, especially those recently obtained at the Hawaiian Islands, and has about completed a report on the latter. Prof. W. P. Hay, of Howard University, continued, as opportunity offered, his work on the crayfishes represented in the Museum, having in progress a comprehensive report upon the species represented.

The collections of marine invertebrates were consulted by Dr. K. Mitsukuri, director of the School of Science of the Imperial University of Tokyo; Dr. Carlos Moreira, of the National Museum of Brazil, Rio de Janeiro; Mr. C. A. Shore, of Johns Hopkins University, and Dr. H. V. Wilson, of the University of North Carolina.

The crustaceans collected by the Fisheries steamer *Albatross* in the eastern Pacific Ocean during the cruise of 1904–5 were deposited in the National Museum by the Bureau of Fisheries, with the arrangement that they be distributed to specialists for the preparation of reports for publication by the Bureau of Fisheries. The several groups have been assigned as follows: Decapoda, to Miss M. J. Rathbun, U. S. National Museum; Alpheidæ, to Dr. H. Coutière, École Supérieure de Pharmacie, Paris, France; Schizopoda, to Dr. A. E. Ortmann, Carnegie Museum; Stomatopoda, to Dr. R. P. Bigelow, Massachusetts Institute of Technology; Isopoda, to Dr. Harriet Richardson, U. S. National Museum; Amphipoda, to Dr. S. J. Holmes, University of Michigan; Cumacea, to Dr. W. T. Calman, British Museum; Cirripedia, to Dr. H. A. Pilsbry, Philadelphia Academy of Natural Sciences; Copepoda, to Dr. K. W. Genthe, Trinity College, Hartford, Connecticut; Ostracoda, to Mr. R. W. Sharpe, New Trier High School, Wilmette, Illinois; Pycnogonida, to Dr. Leon J. Cole, Harvard University.

The marine invertebrates from the Hawaiian Islands, obtained by the Bureau of Fisheries in 1891 and 1901 and by Mr. H. W. Henshaw, were sent to the same workers as the larger collection of 1902, as follows: Sponges, to Dr. F. Urban, K. K. Zoolo isches Institut, Prag, Austria; starfishes, ophiurans and holothurians, to Walter

K. Fisher, Stanford University; Actinians, to Dr. J. E. Duerden, University of Michigan; Stomatopoda, to Dr. R. P. Bigelow; Schizopoda, to Dr. A. E. Ortmann, and Alpheidæ, to Dr. H. Coutière, Paris, France.

To Mr. Walter K. Fisher, of Stanford University, who has been studying the echinoderms of the Pacific coast and Hawaii, secured during recent expeditions of the Bureau of Fisheries, has been assigned the working up of the entire and very extensive collection of starfishes from the north Pacific Ocean in the possession of the Museum. This material has been derived from many sources, but is mainly the result of the explorations of the steamer *Albatross*, beginning in 1888.

In addition to the above, through arrangements made in previous years, the pedate holothurians of the Museum collection are being worked up by Prof. Charles L. Edwards, of Trinity College; the apodal holothurians by Prof. Hubert Lyman Clark, of Olivet College; the hydroids by Prof. C. C. Nutting, of the University of Iowa; the parasitic copepods by Dr. Charles B. Wilson, of the State Normal School, Westfield, Massachusetts, and the free-swimming copepods by Dr. K. W. Genthe, of Trinity College.

No investigations in helminthology have been conducted in the Museum, but from the researches in the Marine-Hospital Service by Dr. C. W. Stiles, in the Bureau of Animal Industry by Mr. B. H. Ransom, and elsewhere by others, the collections in this section are being rapidly increased and becoming of exceptional importance.

The associate curator of the division of plants, Dr. J. N. Rose, in a paper entitled "Studies of Mexican and Central American Plants, No. 4," published in the "Contributions from the National Herbarium," has given descriptions of many new species, revisions of several genera, and notes on many rare forms. In conjunction with Dr. N. L. Britton, of the New York Botanical Garden, he completed a Revision of the Crassulaceæ of North America. His researches on the Cactaceæ have resulted in extensive additions to this branch of the collection, which seems destined to become the largest and richest in the world. The importance of the work on the Crassulaceæ may be judged by the fact that when the joint authors began upon their investigations 5 native genera and about 120 species were recognized as belonging to the flora of North America, while at present the number of genera has been increased to 24 and of species to 283. In the beginning the Museum collection contained only about 80 species, and now it has 270 species, of which 115 are represented by actual types.

Mr. W. R. Maxon, assistant curator, division of plants, has made good progress in the study of the ferns, having prepared and issued several papers on this group. During six months of the year he was

transferred to the Department of Agriculture to assist in the cotton investigations in Guatemala, which gave him the opportunity to make an interesting collection of the plants of that country. In addition to editorial work, Mr. E. S. Steele spent much time in the identification of miscellaneous lots of plants, mainly sent to the Museum for that purpose by the Department of Agriculture; and Mr. J. H. Painter, appointed aid near the close of the year, gave some attention to the Mexican species of *Meibomia*.

Capt. John Donnell Smith, an associate in botany, reports that during the year he continued his studies of plants collected in Central America by himself and others at his instance. Cards were in course of printing for the seventh distribution of these plants and for Part VII of "Enumeratio Plantorum Guatemalensium necnon Salvadorensium Hondurensium Nicaraguensium Costaricensium quas edidit John Donnell Smith." The twenty-seventh continuation of his articles entitled "Undescribed Plants from Guatemala and other Central American Republics" was submitted to the Botanical Gazette for publication.

During the year Dr. Edward L. Greene, also an associate in botany, began the preparation of an important paper under a grant from the Smithsonian Institution, to be entitled "Landmarks of Botanical History," which he expects to complete in the course of about two years.

The total number of papers by the staff of the division of plants issued during the year amounted to 39. The collections in the division have been consulted by the botanists of the Department of Agriculture, by Dr. N. L. Britton and Dr. M. A. Howe, of the New York Botanical Garden, by Prof. E. L. Morris, of the Washington High School, and many others.

Over 2,000 sheets of plants were lent for study to some eighteen institutions and specialists, the larger sendings having been to the Gray Herbarium, Cambridge, Massachusetts; the New York Botanical Garden; the Ames Botanical Laboratory, North Easton, Massachusetts; the Arnold Arboretum, Jamaica Plains, Massachusetts; President Ezra Brainerd, of Middlebury College; Mr. B. F. Bush, of Courtney, Missouri; Doctor Fedde, of the Royal Botanical Museum, Berlin; Fr. Buchenau, of the Natural History Society of Berlin, and the Royal Botanical Gardens at Kew, England.

The head curator of geology, Dr. George P. Merrill, has given much time to the preparation of two general papers, one a contribution to the history of American geology, the other a history of American public scientific surveys. The former was completed during the year and is in course of publication in the Annual Report for 1904. He also conducted observations on the origin of asbestiform serpentine and the weathering of building stone.

Researches in the division of mineralogy were mainly confined to the study of the structure of meteorites by Mr. Wirt Tassin, assistant curator, involving the devising of methods and apparatus for separations, new methods of analyses, and improvements in methods of photographing opaque objects under high powers.

During the early part of the year the assistant curator of stratigraphic paleontology, Mr. R. S. Bassler, then an assistant in the U. S. Geological Survey, completed reports on the paleontology and stratigraphy of the Ordovician rocks of the Lehigh Valley, Pennsylvania, and on the cement resources of the valley of Virginia, both of which are published by the Survey. During the same period he also prepared an article on the James types of Ordovician and Silurian bryozoa, which is now being printed by the University of Chicago. Subsequently he submitted to the Museum a paper on the Bryozoa of the Rochester shales, which are treated monographically, the correlation of American and European Silurian strata being indicated. The monograph of American fossil Ostracoda by Mr. E. O. Ulrich and Mr. Bassler is still in course of preparation, little progress having been made during the year owing to the press of other duties. Mr. Bassler is also engaged upon a somewhat extended paper on the stratigraphy and paleontology of the valley of Virginia.

The catalogue of type specimens of fossil invertebrates in the Department of Geology went to press before the close of the year.

As explained in a previous report, the specimens of Paleozoic insects in the Museum collection were sent for study to Dr. Anton Handirsch, of the K. K. Naturhistorische Hofmuseum of Vienna. His paper on this interesting material was received during the year and is being translated from the German under the supervision of Prof. Charles Schuchert, of Yale University. Other loans of fossil invertebrates for study purposes comprised specimens from the Devonian of Canada and representatives of *Eurypstomites virginiana* Hyatt to Dr. John M. Clarke, of the New York State Museum; specimens from the Maryland Devonian and the stratigraphic series of New York Medina fossils to Prof. Charles Schuchert, of Yale University, and the Troost collection of fossil crinoids to Miss Elvira Wood, of the U. S. Geological Survey. Among specialists who visited the Museum were Mr. E. F. Burchard, Mr. S. H. Ball, and Mr. R. W. Stone, of the U. S. Geological Survey; Mr. L. N. Stephenson and Mr. W. F. Prouty, of Johns Hopkins University; Mr. Walter Granger, of the American Museum of Natural History, Mr. T. H. Aldrich and Col. T. L. Casey.

Dr. William H. Dall reports the completion by himself of a review of the relations of the Miocene beds of Maryland with other American Miocene and the Miocene of Europe, which was published in the Miocene volume of the Maryland State survey. A monograph of

the fauna of the Coos Bay Miocene Empire beds of Oregon is now in progress.

The division of paleobotany, which contains the collections of both the Museum and the Survey, has remained, as heretofore, under the supervision of the paleobotanists of the U. S. Geological Survey. Prof. L. F. Ward completed his monograph on "The status of the Mesozoic floras of the United States, Part II," which will soon be issued by the Survey. Mr. David White made extensive use of the Lacoe collection in the preparation of a report on the stratigraphic succession of the Pottsville floras in the basins of the Appalachian trough, while Dr. F. H. Knowlton was occupied with the flora of the Laramie group and with material from Alaska. The type-specimens of the genus *Myrica* were the subject of study by Mr. E. W. Berry, secretary of the Torrey Botanical Club, of Passaic, New Jersey, and the type specimens of the genera *Eucalyptus* and *Casuarina* by Mr. Henry Dean, president of the Linnæan Society of New South Wales.

EXPLORATIONS.

Members of the Museum staff have little opportunity to engage in field work, owing to the very limited funds available for the purpose, and all expeditions undertaken by them are naturally restricted to obtaining material not already represented in the collections. The principal sources of additions to the collections are the Government surveys and explorations, such as are conducted by the Geological Survey, the Bureau of Fisheries, several bureaus of the Department of Agriculture, and the Bureau of American Ethnology, all of which, under the law, are required to deposit their collections in the Museum as soon as they have been studied, though these transfers are often made without awaiting this result.

Individuals collecting in a private capacity are sometimes among the most liberal contributors, and two such cases are especially noteworthy in the history of the past year. Dr. W. L. Abbott, whose generosity has so often been mentioned in these reports, continued his work in the Far East and has sent home large series of specimens in anthropology, mammalogy, and ornithology. Twenty-eight cases of ethnological objects, comprising his last shipment for the year, illustrate investigations on Sumatra, the Mergui group, and the islands of Nias and Engano. His studies in this subject have been extensive and exhaustive and the results naturally most instructive and important. The field covered by his labors in collecting mammals and birds included mainly the Malay Peninsula and adjacent islands and the islands of Banka, Billiton, and Karimata, between Sumatra and Borneo, from which he has sent many hundreds of interesting specimens.

Maj. Edgar A. Mearns, Surgeon, U. S. Army, stationed with the troops in Mindanao, gave largely of his time to collecting in the same lines as Doctor Abbott, and his collection, presented to the Museum, is very rich in ethnological objects of the Moros and in well-preserved specimens of the mammals and birds of this interesting region. Besides the large island, Doctor Mearns also visited Dinagat, Basilau, Sulu, and Cagayan Sulu. His most important discoveries of animals were made on the upper slopes of Mount Apo, whose zoological novelties have been described elsewhere.

Several expeditions sent out by the Bureau of American Ethnology have served to enrich the collections to a very material degree. Dr. Aleš Hrdlička, detailed by the Museum, spent about ten weeks among the Apaches and Pimas of southern Arizona and New Mexico, and while conducting physical and physiological studies of the Indian children and completing medical researches previously begun, found opportunity for making a large collection of archeological and ethnological objects. Continuing his researches to determine the range of Antillean culture, Dr. J. Walter Fewkes actively prosecuted his studies during the winter at the sites of ancient Totonac semicivilization in the State of Vera Cruz, Mexico. Mrs. Matilda Coxe Stevenson spent the greater part of the year in continuing her investigations among the Zuñi Indians of New Mexico, in the course of which a large and valuable collection was made.

On the 1st of June the assistant curator of ethnology, Dr. Walter Hough, took the field in Arizona and New Mexico to conduct the Museum-Gates Expedition of 1905, with the object of further determining the distribution of the ancient pueblo peoples in the Tulerosa region, a work begun in 1903. This expedition promises a large collection.

As elsewhere noted, the assistant curator of mammals, Mr. Gerrit S. Miller, jr., and the curator of reptiles, Mr. Leonhard Stejneger, spent most of the summer of 1904 in field investigations in Europe. After some collecting in the vicinity of Genoa, Italy, Mr. Miller proceeded to the region of the Alps for the purpose of instituting comparisons between the vertical distribution of life in that area with the life zones of the mountains of eastern North America. A large number of specimens, mainly of mammals, birds, reptiles, and plants, were secured, and many photographs were taken. Headquarters were established successively at Aix-les-Bains, Geneva, St. Cergue, Chamonix, Zermatt, Grindelwald, Vitznau, and Goschenen, from which places trips were made up the neighboring slopes.

The head curator of biology, Dr. F. W. True, made a number of excursions near the close of the year to the Calvert Cliffs and points on the Patuxent River, Maryland, and also to Virginia, for the purpose of collecting specimens of fossil cetaceans and observing their

mode of occurrence. Much new material was obtained at the Calvert Cliffs, some of which throws an important light on the relation of the American forms to those described from the Tertiary formations of Europe.

In the autumn of 1904 Mr. Robert Ridgway, curator of birds, proceeded to Costa Rica, where he remained several months studying the collection of birds in the national museum of that country, collecting in various places to supply desiderata in the museum here, and investigating the distribution and natural environment of many species. The results of this expedition have been of material aid to Mr. Ridgway in continuing his work on the birds of North and Middle America and also to the national collections. In the beginning reconnaissances were made in the San José Valley, on the surrounding mountains, and about Turrucares, on the Pacific Railroad, at Santo Domingo, the present terminus of the railroad, about the volcano of Poas, and at Pigres, an Indian village at the mouth of the Rio Grande de Tarcoles. At the latter place ten specimens were obtained of the rare humming bird, *Arinia boucardi*, previously only known from the single type-specimen. Later a trip was made to the hacienda Monte Redonde, on the south side of the Cerro de la Caudelaria. After the arrival of the collecting outfit, which had been delayed, Mr. Ridgway revisited Pigres, stopping at several places on the way from San José, and collected at Turrialba, on the railroad connecting with the Atlantic side; at Bonilla, a stock farm situated about 1,000 feet above the railroad; at Coleblanco, between the volcanoes of Irazu and Turrialba, elevated about 7,000 feet, and on the volcanoes themselves. The total number of specimens of birds obtained, not including those presented by the national museum of Costa Rica, was 1,359.

Birds and reptiles were collected in Jamaica and Guatemala by Mr. W. H. Maxon, of the division of plants. The division of birds was benefited by the explorations in China of Messrs. Willis and Blackwelder, in North Borneo of Mr. G. A. Goss and H. D. Dodge, and on Kyska Island, Alaska, of Dr. J. Hobart Egbert, of the U. S. Coast Survey. The investigations in Cuba of Mr. E. A. Schwarz, of the U. S. Department of Agriculture, and also custodian of the Coleoptera in the Museum, resulted in the acquisition of a large and important collection of insects, especially rich in Coleoptera. Mr. H. S. Barber, aid in insects, collected extensively in the Dismal Swamp region in the spring.

The explorations of the Bureau of Fisheries have added much material in the line of fishes and marine invertebrates. The most important expedition was by the steamer *Albatross*, which under the scientific direction of Dr. Alexander Agassiz made extensive investigations in the eastern Pacific Ocean between October, 1904, and March, 1905. The vessel touched at Panama, the Galapagos, Callao, Easter Island,

Manga Reva, and Acapulco, making large collections especially of pelagic material between these points, the vertical tow net being used to a depth of 300 fathoms. A small amount of deep-sea dredging and shore collecting was also carried on.

Mr. Barton A. Bean, assistant curator of fishes, made a collecting trip to Carroll County, Maryland, and Mr. Owen Bryant, of Boston, secured large numbers of mollusks at the Bahama Islands, which he shared with the Museum.

Among botanical expeditions sent out by the Department of Agriculture, two were under officers of that Department, who are also connected with the Museum; Mr. F. V. Coville, who visited Texas, Arizona, and New Mexico, and Prof. O. F. Cook, who was detailed to Guatemala. Mr. W. R. Maxon, assistant curator of plants, returned from his second trip to Jamaica in July, 1904, bringing a large number of specimens of plants. Dr. J. N. Rose, associate curator of plants, left Washington on June 21, 1905, for field work in Mexico, which will occupy him during the summer.

In cooperation with the U. S. Geological Survey and by direct detail from the Museum, three members of the staff of the Department of Geology were enabled to take the field for short trips. The head curator, Dr. George P. Merrill, visited Florida and the Thetford Mines region of Canada, securing good exhibition samples of coquina and of soft limestone from the former, and a fine large block of serpentine, with veins of so-called asbestos from the latter. The assistant curator of stratigraphic paleontology, Dr. R. S. Bassler, made explorations in Virginia, South Carolina, and Kentucky, during which he made extensive collections of fossil invertebrates, while Mr. C. W. Gilmore, preparator in vertebrate paleontology, collected in that line in New Mexico. Mr. A. G. Maddren, under a grant from the Smithsonian Institution, spent the summer of 1904 in Alaska, mainly in search of remains of the larger mammals, found fossil in that region. The results of his expedition have been described under the heading of researches.

DISTRIBUTION AND EXCHANGE OF SPECIMENS.

Of the regular series of duplicate specimens which are prepared, as the occasion offers, for the use of educational institutions, 34 sets of fishes, 31 of marine invertebrates, 46 of fossil invertebrates, and 19 of material illustrating rock decomposition and soil formation, a total of 130, besides 60 special sets, containing from a few to several hundred specimens each, were distributed during the year. The total number of specimens so disposed of was 14,103, of which 9,573 were biological, 4,248 geological, and 282 ethnological. Over a ton of mineral and rock fragments was also divided among 11 colleges, in lots of approximately 200 pounds each, for the use of students in blowpipe analysis.

In making exchanges with scientific establishments and individuals, for which a corresponding equivalent is received, 14,129 duplicate specimens were used, in 224 lots, of which 156 were biological, with 9,618 specimens; 22 geological, with 3,637 specimens, and 46 anthropological, with 874 specimens. A total of 14,615 specimens were also sent to specialists for study, in 139 lots, 119 being biological and 20 geological. References to many of these transactions will be found under other headings, but as an indication of the extensive relations of the Museum abroad it is interesting to note here the sources of foreign exchanges for the year.

The establishments from which specimens were received were the British Museum of Natural History, London, England; the University Museum of Zoology, Cambridge, England; the Royal Botanic Gardens, Kew, England; the Museum of Natural History, Paris, France; the Royal Botanical Museum, Berlin, Germany; the Royal Zoological and Anthropological-Ethnographical Museum, Dresden, Germany; the University of Leipzig, Germany; the Zoological Museum, Copenhagen, Denmark; the K. K. Naturhistorisches Hofmuseum, Vienna, Austria; the Museo de Ciencias Naturales, Madrid, Spain; the Royal Botanical Garden, Calcutta, India; the College of Science, Tokyo, Japan, through the Imperial Japanese Commission at the Louisiana Purchase Exposition; the Albany Museum, Grahamstown, South Africa; the Museo Nacional, City of Mexico, Mexico; the Museo de la Plata, La Plata, Argentina; the Museo Paulista, São Paulo, Brazil, and the Museo Nacional, Rio de Janeiro, Brazil.

The individuals were as follows: M. Jean Miguel, Barroubio, Herault, France; M. Pissaro, Paris, France; M. F. Canu, Versailles, France; Dr. Max Verworn, of the University of Göttingen, Germany; Prof. G. M. R. Levinsen, of the University of Copenhagen, Denmark; Dr. J. Matiegka, of the University of Prague, Austria; Dr. Gustav Mayr and Baron Ludwig Ambrózy, Vienna, Austria; Prof. S. Brusina, Zagreb, Croatia; Mr. Robert Meusel, Ujpest, Hungary; Mr. A. Berger, La Mortola, Italy; Rev. R. P. L. Navás, of the Colegio del Salvador, Zaragoza, Spain; Mr. T. Tsuchida, Misaki, Japan; Mr. Y. Hirase, Kyoto, Japan; Mr. Charles M. Maplestone, Eltham, Victoria, Australia; Mr. E. S. Anthony, Hobart, Tasmania; Mr. H. Pittier, San José, Costa Rica; Señor Don Anastasio Alfaro, director of the Museo Nacional, San José, Costa Rica, and Mr. F. H. Wolley Dod, Millarville, Alberta, Canada.

VISITORS.

The visitors to the Museum building during the year numbered 235,921, an increase of 15,143 over the previous year, and an average daily attendance of 753. The Smithsonian building was visited

by 149,380 persons, 5,392 more than the previous year, the daily average being 477.

The following tables show the attendance by months during the past year and for each year since 1881:

Number of visitors during the fiscal year 1904–5.

Year and month.	Museum building.	Smithsonian building.
1904.		
July	14,716	9,174
August	21,473	14,625
September	22,553	14,114
October	19,601	12,741
November	14,268	8,881
December	13,211	7,680
1905.		
January	10,699	6,368
February	12,273	7,175
March	49,100	31,681
April	26,074	16,087
May	17,947	11,611
June	14,006	9,243
Total	235,921	149,380
Average daily attendance	753	477

Number of visitors to the Museum and Smithsonian buildings since the opening of the former in 1881.

Year.	Museum building.	Smithsonian building.
1881	150,000	100,000
1882	167,455	152,744
1883	202,188	104,823
1884 (half year)	97,661	45,565
1884–85 [a]	205,026	105,993
1885–86	174,225	88,960
1886–87	216,562	98,552
1887–88	249,665	102,863
1888–89 [a]	374,843	149,618
1889–90	274,324	120,894
1890–91	286,426	111,669
1891–92	269,825	114,817
1892–93 [a]	319,930	174,188
1893–94	195,748	103,910
1894–95	201,744	105,658
1895–96	180,505	103,650
1896–97 [a]	229,606	115,709
1897–98	177,254	99,273
1898–99	192,471	116,912
1899–1900	225,440	133,147
1900–1901 [a]	216,556	151,563
1901–2	173,888	144,107
1902–3	315,307	181,174
1903–4	220,778	143,988
1904–5 [a]	235,921	149,380
Total	5,553,348	3,019,157

[a] Years of Presidential inaugurations.

LECTURES AND MEETINGS.

The lecture hall was used for lectures and meetings during the year as follows:

On March 9, 1905, the Hon. Andrew D. White, several times the representative abroad of the United States, both as minister and as ambassador, delivered the first lecture under the Hamilton fund of the Smithsonian Institution, his subject being "The diplomatic service of the United States, with some hints toward its reform." A distinguished audience was present, the Secretary of the Institution presiding.

On March 25 the U. S. Naval Medical School held its annual commencement exercises here. The diplomas were presented to the graduates by the President of the United States, and addresses were made by Dr. W. H. Welch, of Johns Hopkins University, and Medical Director R. A. Marmion, U. S. Navy, the director of the school.

The following Saturday afternoon lectures were delivered under the auspices of the Biological Society of Washington, the attendance ranging from about 300 to 600:

March 18, "Diatoms: The jewels of the plant world," by Dr. Albert Mann.

March 25, "Mosquitoes," by Dr. L. O. Howard.

April 1, "Forest insects and their destructive work," by Dr. A. D. Hopkins.

April 8, "Beneficial bacteria," by Dr. George T. Moore.

April 15, "Bruno, the black bear; a strange story of the north woods," by Mr. William L. Underwood.

April 22, "The life of a whale," by Dr. F. W. True.

The National Academy of Sciences held its annual session in the Museum building from April 18 to 20, the lecture hall being used for the public meetings and the office of the assistant secretary for business purposes.

On May 3 the American Institute of Mining Engineers held one of its sessions in the lecture hall. The delegates were received by the assistant secretary, who spoke of the relations of the Institute to the National Museum. Doctor Merrill, head curator of geology, discussed the division of applied geology in the Museum, after which the members of the Institute visited the Department of Geology.

Special facilities were afforded the delegates to the seventh session of the International Railway Congress and the Exhibition of the American Railway Appliance Association, held in Washington from May 4 to 15, 1905, to study the technological exhibits, some of which had been expressly assembled for the purpose, and an informal meeting of some of the delegates was held in the mineralogical laboratory to discuss metallographic methods.

On September 20, 1904, a special exhibition of electrical apparatus was arranged in the lecture hall for the convenience of the foreign electrical engineers, who were in the city as guests of the American Institute of Electrical Engineers.

CORRESPONDENCE AND DOCUMENTS.

There has been a large increase in the correspondence during recent years, as may be judged by the fact that, while five years ago the total number of letters written filled about 4,500 pages of letter-press, during last year nearly 8,000 pages were required for this purpose, besides over 2,000 pages of memoranda bearing upon the correspondence. This growth is chiefly due to the increased demands of the public for information on scientific subjects, and all requests of this character made in evident good faith are cheerfully complied with. This is in accordance with long-established custom for the diffusion of knowledge under the terms of the bequest of Smithson.

In the Museum, however, this task has in many respects become onerous, in view of the relatively small force employed and of the fact that the time of both the scientific and the clerical staff is involved. Specimens in lots of a single object to several hundred are received for identification, the number of such lots during the year having been 1,051. While the Museum has no facilities for making quantitative analyses, yet the qualitative examinations of the many mining products received annually generally suffice for the purposes of the sender.

There has been a notable increase in the inquiries regarding museum administration, the building of cases, the installation of collections, their labeling, etc., indicating greater activity in museum work throughout the country and the establishment of new museums.

A large part of the information furnished by the Museum is accomplished through its publications, of which not less than 25,000 volumes and pamphlets were distributed from the office of correspondence during the year to institutions and individuals named on the regular mailing list, while about 18,000 additional publications were furnished in response to special requests.

PUBLICATIONS.

The publications of the past year comprised the Annual Report of the National Museum for 1903, issued May 17, 1905; the third volume of Mr. Robert Ridgway's work on the "Birds of North and Middle America," issued December 31, 1904; part 4, of volume 8, of "Contributions from the National Herbarium," entitled "Studies of Mexican and Central American Plants, No. 4," by Dr. J. N. Rose, issued April 20, 1905, and volume 9 of the same series, entitled "The Useful Plants of the Island of Guam," by Mr. William E. Safford, of

the Department of Agriculture. Most of the edition of volume 27 of the Proceedings was distributed in July, 1904, although a small number of copies were sent out on June 30, the last day of the previous fiscal year.

The Annual Report for 1903 contained, besides the administrative report of the assistant secretary and the reports of the head curators, with the usual appendices, a paper by the assistant secretary, entitled "The United States National Museum: An account of the buildings occupied by the national collections," and a translation from the German of three papers combined as one by Dr. A. B. Meyer, of Dresden, entitled "Studies of the museums and kindred institutions of New York City, Albany, Buffalo, and Chicago, with notes on some European institutions." The paper by Doctor Meyer, so far as it related to the United States, was based chiefly on personal observations during the summer and autumn of 1899.

Volume 27 of the Proceedings is composed of papers numbered from 1350 to 1381, inclusive. Papers 1382 to 1406, inclusive, forming the greater part of volume 28 of the Proceedings, were published during the year, and it is expected that this volume will be completed during the summer of 1905.

The third volume of Mr. Ridgway's work on the "Birds of North and Middle America" contains 821 pages and covers the wagtails and pipits, swallows, waxwings, silky-flycatchers, palm-chats, vireos, shrikes, crows and jays, titmice, nuthatches, creepers, wrens, dippers, wren-tits, and warblers. It is illustrated with nineteen plates. The manuscript for volume 4 is well advanced.

The papers published as part 4 of volume 8, and volume 9 of the "Contributions from the National Herbarium," already mentioned by title, are among the most useful that have appeared in this series. There is considerable activity among American botanists in the study of Mexican and Central American plants, and Doctor Rose's contribution will no doubt be a welcome addition to the literature on this subject.

The paper by Mr. Safford on the Island of Guam has elicited much favorable comment and is a very important contribution. Mr. Safford, until recently a lieutenant in the U. S. Navy, served as assistant governor of Guam from August, 1899, to August, 1900. He is, therefore, especially well equipped for preparing such a work, which includes an interesting account of the physical characteristics and natural history of the island, the character and history of its people and of their agriculture, and also a descriptive catalogue of the plants.

These two papers are the only ones from the "Contributions from the National Herbarium" available for distribution by the National Museum, excepting reprints of volumes 2 and 7, entitled, respectively,

"Botany of Western Texas," by John M. Coulter, and "Systematic and Geographic Botany, and Aboriginal Uses of Plants," by Messrs. Coulter, Rose, Cook, and Chesnut.

Owing to the continuous demand for certain papers issued in past years, the first editions of which had become exhausted, the following have been reprinted: "Cradles of the American Aborigines," by Otis T. Mason, from the Report for 1887; "The Extermination of the American Bison, with a sketch of its Discovery and Life History," by William T. Hornaday, from the Report for 1887; "The Expedition to Funk Island, with Observations upon the History and Anatomy of the Great Auk," by Frederic A. Lucas, from the Report for 1888; "Fire-making Apparatus in the U. S. National Museum," by Walter Hough, from the Report for 1888; "White-line Engraving or Relief-printing in the Fifteenth and Sixteenth Centuries," by S. R. Koehler, from the Report for 1890; "Japanese Wood-cutting and Wood-cut Printing," by T. Tokuno, from the Report for 1892; "Contributions to Philippine Ornithology—Part I, A list of the birds known to inhabit the Philippine and Palawan Islands, showing their distribution within the limits of the two groups," by Dean C. Worcester and Frank S. Bourns; "Part II, Notes on the distribution of Philippine birds," by Dean C. Worcester, from volume 20 of the Proceedings.

In addition there were also reprinted Parts B, C, D, E, F, J, K, L, O, P, of Bulletin 39, containing, respectively, directions for collecting recent and fossil plants, birds' eggs, reptiles and batrachians, insects, fossils, scale insects, dragon flies, stone flies, and May flies; and also notes on the preparation of rough skeletons, instructions for obtaining information concerning the aboriginal uses of plants, and directions for collectors of basketry.

In the list of publications on page 111 will be found the titles of those papers published during the year which are based, directly or indirectly, on the collections of the Museum. The list includes 246 titles, the number of authors represented being 90. The following table shows the subjects to which these papers relate:

Classified list of subjects.	Papers by museum officers.	Papers by other investigators.	Total.
Geology and mineralogy	4		4
Paleontology	13	6	19
Botany	33	7	40
Mollusks	15		15
Crustaceans	9	3	12
Insects	27	20	47
Arachnids		2	2
Miscellaneous invertebrates	17	1	18
Fishes	13	4	17
Reptiles and batrachians	5	1	6
Birds	14	21	35
Mammals	2	5	7
General zoology	1		1
Physical anthropology	5		5
Archeology	4		4
Ethnology	3	1	4
Photography	1		1
Museum history and administration	8	1	9
Total	174	72	246

Permission was granted by the Secretary of the Smithsonian Institution during the year for printing the following papers, based on Museum material, in publications other than those under the control of the Institution, all of which, excepting one, were issued before June 30:

BASSLER, R. S.:

Cement materials of the Valley of Virginia. Bull. U. S. Geol. Surv. No. 260, 1904, pp. 531–544, figs. 23, 24. (June, 1905.)

HOUSE, HOMER D.:

Notes on New Jersey violets. Bull. Torrey Botan. Club, XXXII, no. 5, May, 1905, pp. 253–260, pls. 16–18.

Further notes on the orchids of central New York. (Not yet published.)

MAXON, WILLIAM R.:

A new *Asplenium* from Mexico. Bull. Torrey Botan. Club, XXXI, no. 12, Dec., 1904, pp. 657, 658. (Jan. 9, 1905.)

On the names of three Jamaican species of *Polypodium*. Bull. Torrey Botan. Club, XXXII, no. 2, Feb., 1905, pp. 73–75. (March 22, 1905.)

A new *Botrychium* from Jamaica. Bull. Torrey Botan. Club, XXXII, no. 4, April, 1905, pp. 219–222, pl. VI. (May 6, 1905.)

Adenoderris, a valid genus of ferns. Botan. Gazette, XXXIX, no. 8, May 20, 1905, pp. 366–369, text figs. 1, 2.

MERRILL, GEORGE P.:

On the origin of veins of asbestiform serpentine. Bull. Geol. Soc. America, XVI, 1905, pp. 131–136.

STEJNEGER, LEONHARD:

A snake new to the District of Columbia. Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, pp. 75–78.

Besides the publications, the editorial office has also had charge of all the miscellaneous printing for the Museum, a very consider-

able task, since it includes many thousand labels, blanks, blank books, letter heads, etc. The total number of forms under this heading was 2,790 and the total number of items 355,413.

LIBRARY.

The library of the National Museum now includes 24,170 bound volumes and 38,643 unbound papers. The additions during the year consisted of 3,573 books, 3,048 pamphlets, and 563 parts of volumes. There were catalogued 1,952 books, 3,755 pamphlets, and 12,216 parts of periodicals. The number of cards added to the authors' catalogue was 5,942, exclusive of 847 cards for books and pamphlets recatalogued.

Fifteen sets of periodicals in which parts were missing were completed wholly or in part. The total number of volumes bound was 1,371, and by the close of the year several hundred additional volumes had been made ready for the bindery.

The number of books, pamphlets, and periodicals borrowed from the general library amounted to 40,400, including 9,192 which were assigned to the sectional libraries.

One sectional library, consisting of works relating to physical anthropology, has been added during the year, the list of these libraries being now as follows:

Administration.
Administrative assistant.
Anthropology.
Biology.
Birds.
Botany.
Children's room.
Comparative anatomy.
Editor.
Ethnology.
Fishes.
Geology.
History.
Insects.
Mammals.
Marine invertebrates.
Materia medica.
Mesozoic fossils.
Mineralogy.
Mollusks.
Oriental archeology.
Paleobotany.
Parasites.
Photography.
Physical anthropology.
Prehistoric archeology.
Reptiles.
Stratigraphic paleontology.
Superintendent.
Taxidermy.
Technology.

PHOTOGRAPHY.

In illustrating Museum objects, largely for reproduction in the publications and in copying plans, diagrams, etc., required in connection with the work of the Museum, there were made in the photographic laboratory during the year 1,771 negatives, 322 platinum prints, 2,467 silver prints, 3,289 cyanotypes, 478 velox prints, 26 bromide enlargements, and 103 lantern slides. The chief photographer, Mr. T. W. Smillie, has also supervised most of the photographic work for other bureaus of the Smithsonian, as well as for the parent institution, a special assistant for this purpose being employed under his direction. He was detailed in October, 1904, to make the official photographs of the Smithsonian exhibits at the

Louisiana Purchase Exposition, and has continued, as in previous years, to conduct the examinations in photography for the U. S. Civil Service Commission.

COOPERATION OF THE EXECUTIVE DEPARTMENTS.

The Museum has, as usual, received important assistance from several of the Departments and bureaus of the Government. Its relations to the United States Geological Survey, the Bureau of Fisheries, the Biological Survey and Divisions of Entomology and Botany of the Department of Agriculture, and the Bureau of American Ethnology, especially in regard to the transfer of collections, have been referred to elsewhere.

Officers of the Army and Navy stationed in the new possessions have made several valuable contributions, and the Army Medical Museum has continued its cooperation in promoting the welfare of the division of physical anthropology.

Special acknowledgments are due to the Quartermaster's Department of the Army for many courtesies in connection with the transportation of specimens and outfits to and from distant points, and to the Treasury Department for the prompt admission and shipment to Washington of specimens received from abroad at several of the customs-houses.

EXPOSITIONS.

Louisiana Purchase Exposition.—The exhibits of the National Museum for this exposition were prepared under the general direction of Dr. F. W. True, who represented the Smithsonian Institution and the Museum on the Government Board. Dr. Marcus W. Lyon, jr., was appointed to assist him in the capacity of chief special agent. The exhibits were classified under anthropology, biology, and geology, and were assembled under the supervision of the head curators, Prof. O. T. Mason, Doctor True, and Dr. George P. Merrill, respectively. A brief description of them was given in the Smithsonian Report for 1904. The exposition closed on December 2, 1904, and the exhibits were returned to Washington early in 1905, with the exception of those which it was decided to send to the Lewis and Clark Exposition.

Lewis and Clark Exposition.—The bill providing for the celebration of the one hundredth anniversary of the exploration of the Oregon country by Capts. Meriwether Lewis and William Clark was approved on April 13, 1904, and the sum of $200,000 was appropriated for the expenses of a Government exhibit. The exposition opened June 1, 1905, to run for a period of five and one-half months, or until October 15, 1905. Doctor True and Doctor Lyon acted in the same capacities as for the preceding exposition. The sum of

$12,000 and a rather small, but otherwise satisfactory, space in the Government building were allotted for the exhibits of the Institution and Museum. These, in accordance with law, were selected as far as possible from the collections displayed at St. Louis, but a few other objects were added. Among the latter the most important were skeletons of a Dodo, of a Great Auk, and of an adult Piked Whale.

The largest objects in anthropology sent from St. Louis were four of the models of ancient Mexican temples; and in geology, the restorations of the extinct reptiles *Triceratops* and *Stegosaurus*. From the large game series the rhinoceros, lion, tiger, Norway elk, chamois, mouflon, and Marco Polo's sheep were selected for exhibition in Portland. The collections of birds and minerals were arranged in wall cases, with light backgrounds, and presented an especially attractive appearance.

The exhibits of the other bureaus of the Institution, and of the Institution itself, were substantially the same as at St. Louis, though the installation was necessarily modified to meet the requirements of the more restricted space. In the case of the National Zoological Park, however, the large aviary was abandoned, the work of the bureau being illustrated by maps and photographs of the park and of the cages and other enclosures for animals. The reproduction of the children's room was also omitted for lack of space.

INTERNATIONAL CONGRESSES.

At the Sixth International Zoological Congress, held in Berne, Switzerland, from August 14 to 19, 1904, under the presidency of Prof. Th. Studer, the National Museum was represented by Dr. Leonhard Stejneger, curator of reptiles and batrachians, Mr. Gerrit S. Miller, jr., assistant curator of mammals, and Dr. C. W. Stiles, custodian of the helminthological collections, all of whom were also delegates on behalf of the United States Government. Doctor Stejneger served as one of the vice-presidents at the second general session, and Mr. Miller and Doctor Stiles in the same capacity at the fourth general session. The total number of delegates from the United States in attendance was 22, 6 of whom read papers, as follows: Prof. H. F. Osborn, of the American Museum of Natural History, "Ten years' progress in the mammalian paleontology of North America" and "Evolution of the horse—Recent discoveries and studies;" Prof. W. B. Scott, of Princeton University, "The mammalian fauna of the Santa-Cruz beds of Patagonia;" Prof. J. C. Merriam, of the University of California, "A new group of marine reptiles from the Triassic of California;" Prof. Bashford Dean, of Columbia University, "Some embryological evidence as to the position of Chimæra;" Dr. Charles

S. Minot, of the Harvard Medical School, "The changes in the animal cell during rejuvenation and severance," and Dr. R. G. Harrison, of Johns Hopkins University, "New investigations and observations on the development of the peripheral nerves of vertebrates."

Mr. William H. Holmes, chief of the Bureau of American Ethnology, besides visiting some of the principal European museums in behalf of the National Museum, attended the Fourteenth International Congress of Americanists at Stuttgart, Germany, from August 18 to 23, 1904, as the representative of the Museum and Institution and of the Government. Other official American delegates were the Duc de Loubat, a patron of American archeological research; Dr. Paul Haupt, of the National Museum and Johns Hopkins University; Dr. Franz Boas, of the American Museum of Natural History, and Rev. C. W. Currier, of the Catholic University of America. A number of papers were read dealing with questions of American history, ethnology, and archeology. Mr. Holmes presided at a meeting of the Congress on August 20, and on the same day delivered an address on "Contributions of American archeology to the science of man." Dr. Franz Boas read a paper on the "Influence of the social foundation of the Kwakiutl Indians upon their culture;" and Rev. C. W. Currier one on "The Indian languages of the United States." The Smithsonian Institution presented to the Congress, through its representative, a set of 75 bound volumes relating mainly to American archeology and ethnology, published by the Institution and two of its bureaus—the National Museum and the Bureau of American Ethnology—as well as a set of photographs of American Indians, furnished jointly by the Bureau and the Museum.

Dr. Paul Haupt, associate in historic archeology, was a delegate of the Smithsonian Institution and the National Museum at the Second International Congress for the General History of Religions, at Basle, August 30 to September 2, 1904, and again at the Fourteenth International Congress of Orientalists, held in Algiers during April, 1905. Dr. Cyrus Adler, of the Institution and Museum, acted as the representative of the United States on the committee on organization for the latter Congress.

The Institution, the Museum, and the Government were represented at the Second International Botanical Congress, held in Vienna, Austria, from June 11 to 18, 1905, by Mr. Frederick V. Coville, curator of the division of plants, Mr. William F. Wight, of the Department of Agriculture, also being present as a delegate from the Museum.

Dr. Leonhard Stejneger attended, on behalf of the Institution and Museum, the Fourth International Ornithological Congress at London, from June 12 to 17, 1905, and will also act for the Institution at the Convention on the International Catalogue of Scientific Literature to be held in London on July 25, 1905.

The Institution was represented at the meeting of the International Congress on Education, held in St. Louis, from June 28 to July 1, 1904, by Dr. Marcus W. Lyon, jr., of the Museum staff.

ORGANIZATION AND STAFF.

Upon the completion of the new building, it is proposed to take advantage of the additional space afforded to reorganize and place upon a proper basis that branch of the Museum which is best comprehended under the title arts and industries. The Louisiana Purchase Exposition, however, furnished such an exceptional opportunity for obtaining material illustrative of mineral technology that a department under this name was established in the autumn of 1904, in order that the selection of specimens at St. Louis might be judiciously supervised. Dr. Charles D. Walcott, Director of the U. S. Geological Survey, has accepted the curatorship of this department.

Dr. Cyrus Adler has been made curator, and Dr. I. M. Casanowicz assistant curator of historic archeology, and Dr. Paul Haupt, of Johns Hopkins University, an associate in the same division.

Four other associates, this being an honorary title, were also designated during the year, as follows: In zoology, Dr. W. L. Abbott, of Philadelphia, Pennsylvania; in botany, Capt. John Donnell Smith, of Baltimore, Maryland; in mineralogy, the Rev. L. T. Chamberlain, of New York City, and in paleobotany, Prof. Lester F. Ward, for many years associate curator of the collection of fossil plants.

Dr. J. N. Rose has been advanced to associate curator in the division of plants, and Mr. W. R. Maxon to assistant curator. Mr. J. H. Painter was appointed aid in the same division, and Mr. Homer D. House served in a like capacity during five months of the year.

Dr. James E. Benedict, assistant curator of the division of marine invertebrates, has had direct charge of the exhibits in biology.

Mr. Herbert S. Barber was made an aid in the division of insects to fill the vacancy caused by the transfer of Mr. R. P. Currie to the Department of Agriculture, and Mr. B. H. Ransom has been appointed assistant custodian of the helminthological collections. The appointment in 1903–4 of Mr. C. A. McKnew as aid in the division of fishes, and Mr. E. J. Horgan as aid in the section of birds' eggs, failed to receive mention in the last report.

Mr. Charles Schuchert, assistant curator of stratigraphic paleontology, resigned during the year to accept the position of professor of paleontology in Yale University, and was succeeded by Dr. Ray S. Bassler, of the U. S. Geological Survey. Mr. W. H. Newhall, aid in the division of systematic and applied geology, died on May 21, 1905, and his place has been temporarily filled by the appointment of Mr. W. O. Snelling. Vacancies in the section of fossil vertebrates were filled by the selection of Mr. James W. Gidley and Mr. Charles W.

Gilmore as preparators, and of Mr. Norman H. Boss as assistant preparator.

Mr. David White, of the U. S. Geological Survey, has been designated associate curator of paleobotany in the place of Prof. Lester F. Ward, now an associate.

Dr. Frederick W. True, head curator of biology, was designated the representative of the Smithsonian Institution and National Museum on the Government Board for the Lewis and Clark Exposition at Portland, Oregon, and Dr. Marcus W. Lyon, jr., chief special agent in the same connection.

Mr. W. I. Adams, chief clerk of the Bureau of International Exchanges, has been appointed disbursing agent of the Smithsonian Institution for its several bureaus, including the National Museum.

Under the provisions of the act of Congress, approved March 3, 1905, prohibiting the employment of volunteers by the Government, it has been necessary to discontinue the gratuitous services of Dr. T. H. Bean as honorary curator of fishes and Dr. B. E. Fernow as honorary curator of forestry, as these gentlemen are no longer connected with the Government service. It may also be mentioned in this connection that the title of "honorary," as applied to curators and subordinate positions on the scientific staff, has been discontinued as superfluous, since hereafter all persons actively connected with the staff, whether paid from the appropriation for the Museum or not, must be in the employ of the Government.

A list of the officers constituting the scientific and administrative staff follows:

The Museum Staff.

[June 30, 1905.]

S. P. Langley, Secretary of the Smithsonian Institution, Keeper *Ex-officio.*
Richard Rathbun, Assistant Secretary, in charge of the U. S. National Museum.
W. deC. Ravenel, Administrative Assistant.

SCIENTIFIC STAFF.

Department of Anthropology:
Otis T. Mason, Head Curator.
Division of Ethnology: Otis T. Mason, Curator; Walter Hough, Assistant Curator; J. W. Fewkes, Collaborator.
Division of Physical Anthropology: Aleš Hrdlička, Assistant Curator.
Division of Historic Archeology: Cyrus Adler, Curator; I. M. Casanowicz, Assistant Curator.
Division of Prehistoric Archeology: William H. Holmes, Curator; J. D. McGuire, Collaborator.
Division of Technology: George C. Maynard, Assistant Curator.
Division of Graphic Arts: Paul Brockett, Custodian.
Section of Photography: T. W. Smillie, Custodian.
Division of Medicine: J. M. Flint, U. S. Navy (retired), Curator.

DEPARTMENT OF ANTHROPOLOGY—Continued.

Division of Historic Religions: Cyrus Adler, Curator.

Division of History: A. Howard Clark, Curator; Paul Beckwith, Assistant Curator.

Associate in Historic Archeology (Honorary): Paul Haupt.

DEPARTMENT OF BIOLOGY:

Frederick W. True, Head Curator.

Division of Mammals: Frederick W. True, Curator; Gerrit S. Miller, jr., Assistant Curator; Marcus W. Lyon, jr., Aid; Walter L. Hahn, Aid.

Division of Birds: Robert Ridgway, Curator; Charles W. Richmond, Assistant Curator; J. H. Riley, Aid.

Section of Birds' Eggs: William L. Ralph, Curator; E. J. Horgan, Aid.

Division of Reptiles and Batrachians: Leonhard Stejneger, Curator; R. G. Paine, Aid.

Division of Fishes: Barton A. Bean, Assistant Curator; C. A. McKnew, Aid.

Division of Mollusks: William H. Dall, Curator; Paul Bartsch, Aid; William B. Marshall, Aid.

Division of Insects: L. O. Howard, Curator; W. H. Ashmead, Assistant Curator; H. S. Barber, Aid.

Section of Hymenoptera: W. H. Ashmead, in charge.

Section of Myriapoda: O. F. Cook, Custodian.

Section of Diptera: D. W. Coquillett, Custodian.

Section of Coleoptera: E. A. Schwarz, Custodian.

Section of Lepidoptera: Harrison G. Dyar, Custodian.

Section of Arachnida: Nathan Banks, Custodian.

Division of Marine Invertebrates: Richard Rathbun, Curator; J. E. Benedict, Assistant Curator; Mary J. Rathbun, Assistant Curator; Harriet Richardson, Collaborator.

Section of Helminthological Collections: C. W. Stiles, Custodian; B. H. Ransom, Assistant Custodian.

Division of Comparative Anatomy:

Division of Plants (National Herbarium): Frederick V. Coville, Curator; J. N. Rose, Associate Curator; W. R. Maxon, Assistant Curator; J. H. Painter, Aid; Homer D. House, Aid.

Section of Cryptogamic Collections: O. F. Cook, Assistant Curator.

Section of Higher Algae: W. T. Swingle, Custodian.

Section of Lower Algae.

Section of Lower Fungi: D. G. Fairchild, Custodian.

Associates in Zoology (Honorary): W. L. Abbott, Theodore N. Gill, C. Hart Merriam, R. E. C. Stearns.

Associates in Botany (Honorary): Edward L. Greene, John Donnell Smith.

DEPARTMENT OF GEOLOGY:

George P. Merrill, Head Curator.

Division of Physical and Chemical Geology (Systematic and Applied): George P. Merrill, Curator; W. O. Snelling, Aid.

Division of Mineralogy: F. W. Clarke, Curator; Wirt Tassin, Assistant Curator.

Division of Stratigraphic Paleontology: Charles D. Walcott, Curator; R. S. Bassler, Assistant Curator.

Section of Vertebrate Fossils:

Section of Invertebrate Fossils: Paleozoic, R. S. Bassler, in charge; Carboniferous, George H. Girty, Custodian; Mesozoic, T. W. Stanton, Custodian; Cenozoic, W. H. Dall, Associate Curator; Madreporarian Corals, T. Wayland Vaughan, Custodian.

Section of Paleobotany: David White, Associate Curator; A. C. Peale, Aid; F. H. Knowlton, Custodian of Mesozoic Plants.

Associate in Mineralogy (Honorary): L. T. Chamberlain.

DEPARTMENT OF GEOLOGY—Continued.
Associate in Paleontology (Honorary): Charles A. White.
Associate in Paleobotany (Honorary): Lester F. Ward.
DEPARTMENT OF MINERAL TECHNOLOGY:
Charles D. Walcott, Curator.

ADMINISTRATIVE STAFF.

Chief of Correspondence and Documents, R. I. Geare.
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LIST OF ACCESSIONS TO THE COLLECTIONS DURING THE FISCAL YEAR 1904-5.

Except where otherwise indicated, the specimens were presented to the Museum or transferred in accordance with law.]

ABBE, CLEVELAND, U. S. Weather Bureau, Department of Agriculture: 4 mollusks (*Polygyra albolabris* var. *major* Binn.) from Mount Weather, near Bluemont, Va. (44153); 8 mollusks (*Linnæa* and *Planorbis*); concretion of ocher and a fossil pebble (44270).

ABBOTT, WILLIAM L., Singapore, Straits Settlements, Malay Archipelago: 19 boxes, containing a collection of rare and valuable mammals, birds, birds' nests and eggs, reptiles, mollusks, marine invertebrates, skeletons of mammals and birds, brains of animals; also ethnological material, collected in Singapore, Mergui Archipelago, German New Guinea, and Lower Siam (43017); large collections of natural history material and ethnological specimens from Banka, Billiton, and Karimata (44559). (See also under C. Boden Kloss.)

ADKINS, WILLIAM H. (See under Chickahominy Tribe.)

ADLER, CYRUS, Smithsonian Institution: Facsimile of Thomas Jefferson's Bible (44113).

AFRO-AMERICAN TRADING AND NAVIGATION COMPANY, New York City (received through Department of Agriculture): Plant from East Africa (43586: deposit).

AGRICULTURE, U. S. DEPARTMENT OF, Hon. James Wilson, Secretary.

Biological Survey, C. Hart Merriam, chief. 132 birds' eggs and 21 nests, obtained in different sections of North America (42997); 2 crabs and 3 crayfishes, collected by E. W. Nelson and E. A. Goldman at Tuxtla, Mexico (42999); 9 eggs of Mexican birds (43028); egg of Curassow, *Crax globicera*, and nest of humming bird (*Lampornis prevostii*) (43131); 36 birds' eggs and 6 nests, collected in Arctic America by E. A. Preble (43657); 5 mollusks, collected by E. A. Goldman in California (44021); 20 mollusks from Texas, received through Vernon Bailey (44022); 300 fresh-water and land shells from Great Falls, Mont., through Vernon Bailey (44111); 2 crayfishes from Sour Lake, Texas (44142); land and fresh-water mollusks, collected by J. H. Gaut at Sour Lake, Texas (44154); 19 birds' eggs, collected in Lower Californa by E. A. Goldman (44281); 5 birds' eggs and nest of Scissor-tailed flycatcher, *Milvulus forficatus*, collected in Texas by J. H. Gaut (44284); 7 birds' eggs (44287); 12 land snails from Coronado Islands, near San Diego, Cal., collected by E. W. Nelson and E. A. Goldman (44377); nest and 4 eggs of Parula Warbler, *Compsothlypis americana*, collected by H. W. Henshaw at Glen Echo, Md. (44380); nest and 4 eggs of Grasshopper sparrow, *Coturniculus savannarum bimaculatus*, collected in Nebraska by Merritt Cary (44401); 8 birds' eggs, collected in Lower California by E. W. Nelson and E. A. Goldman (44402); 40 land shells, collected in Texas by J. H. Gaut (44447); 5 cacti, collected in Texas by J. H. Gaut (44572); 45 shells from Pyramid Lake, Utah, collected by Vernon Bailey (44620).

Bureau of Animal Industry, D. E. Salmon, chief. Skull of a fox terrier (43351).

Bureau of Entomology, L. O. Howard, chief. 124 Lepidoptera and 25 Orthoptera from Cuba, collected by E. A. Schwarz (42944); isopod crustaceans (44122); sowbug from Berkeley, Va. (44262).

Bureau of Plant Industry, B. T. Galloway, chief. About 1,000 plants, reptiles, insects, birds' eggs, mammals, and fishes from Guatemala, collected by W. R. Maxon (44279).

Weather Bureau, Willis L. Moore, chief. Set of marine repeaters, pocket relay, and Swift's lightning-cable arrester (43626).

Material deposited in the National Herbarium: 12 plants collected in Colorado by Miss E. Cathcart (42935); 4 plants collected in Oregon by C. V. Piper (42938); 8,963 plants of the late A. B. Langlois collection (43043); 31 plants from Colorado, collected by Miss E. Cathcart (43171); 38 plants from Colorado, collected by Vernon Bailey (43181); 18 ferns from Europe (43344); 3 plants collected by H. P. Chandler in California (43357); 2 plants from Indiana, collected by J. W. Whiteman (43369); plant from South Carolina, collected by J. S. Newman (43270); specimen of *Aristolochia* from Battles Wharf, Ala., received through R. H. True (43406); 2 plants from Mexico (43457); plant from California, collected by C. Hart Merriam (43506); 219 plants from Greenland (43565); 11 plants from Canada, obtained by John Macoun (43566); 411 plants from the herbarium of F. Lamson-Scribner (43589); 1,450 plants collected by David Griffiths in the southwest section of the United States (43650); 5 plants collected in Washington by C. V. Piper (43682); 68 plants collected in Washington (43689); 20 plants from Texas (43764); 496 plants from Alaska, collected by C. V. Piper (43805); 3 plants from Oklahoma and New Mexico, collected by J. H. Gaut (43878); 513 plants collected by C. V. Piper in Oregon, California, and Arizona (43899); 4 specimens of Cactaceæ from California and Arizona, collected by W. T. Swingle (43938); 62 plants collected by Chester Washburne in Alaska (43963); specimen of *Juncus*, collected by B. E. Fernow in New York (43964); 43 sheets of plants, collected by W. H. Osgood in Alaska (43966); 10 plants, collected by A. and A. W. Greely in Alaska (43967); 2 specimens of grasses from Alaska (44010); orchid from Cascade Mountains (type of *Listera caurina* Piper), from C. V. Piper (44086); 29 plants from California and Oregon, collected by C. V. Piper (44087); 9 plants from Oregon, collected by M. A. Crosby (44088); 3 specimens of Cyperaceæ from California, collected by H. P. Chandler (44089); 6 plants from North America (44090); 111 plants from the District of Columbia and vicinity, collected by L. H. Dewey (44093); 26 sheets of *Junci*, collected by C. V. Piper and J. S. Cotton in Oregon and Washington (44118); 2 specimens of *Carex*, collected by Byron Hunter in Washington (44134); 384 plants from Canada, collected by E. A. Preble (44182); cactus from Texas, collected by J. H. Gaut (44201); 10 specimens of cacti from California, collected by W. T. Swingle (44202); 8 plants collected in Texas by J. H. Gaut (44312); 300 living cacti from Mexico, collected by Edward Palmer (44345); 2 plants from Alaska, collected by J. H. Egbert (44364); 54 plants from Desert Botanical Laboratory, Tucson, Ariz. (44400); 166 plants from E. Hackel, Gratz, Austria, from various localities (44431); 231 plants from E. Hackel, from various localities (44432); 57 plants from D. J. Litwinon, St Petersburg Academy of Sciences, collected in various localities (44433); 18 type specimens of plants from D. J. Litwinon, of the St. Petersburg Academy of Sciences, obtained in various localities (44434); plant collected by J. K. Small in Georgia (44466); 275 plants from various localities, sent by E. Hackel (44509); 2 living plants, collected in Lower California by E. W. Nelson (44511); 51 plants, collected in Canada by John Macoun (44521); 5 plants, collected in the District of Columbia and vicinity by E. S. Steele (44522); 13 plants, collected in Mexico by T. S. Brandegee (44523); 15 plants from Washington State, collected by J. S. Cotton (44524); plant from Arizona, collected by J. J. Thornber and D. Griffiths (44525); 4 plants, collected in Texas by F. J. Tyler (44526); 37 plants, collected by E. O. Wooton in Colorado and New Mexico (44527); plants collected in Washington by C. R. Ball (44528); plant collected in Florida by S. M. Tracy (44529); plant from Washington State, collected by Messrs. J. H. Sandberg and J. B. Leiberg (44530); 7 plants, collected in South Africa by W. M. Longden (44531); 5 plants, collected in Oregon by W. C. Cusick (44532); 14 plants, collected in

Texas, New Mexico, and Arizona by David Griffiths (44533); 6 plants, collected in Texas by C. W. Warburton (44534); 87 plants, collected in Washington and Oregon by Byron Hunter (44535); 5 plants, collected in Maine by J. C. Parlin (44536); specimen of fern, *Ophioglossum vulgatum*, from the District of Columbia (44571); received through Biological Survey 5 cacti collected in Texas by J. H. Gaut (44752). (See also under Afro-American Trading and Navigation Company; A. J. Collier; A. A. Girault; J. H. Gaut; Hawaiian Experiment Station; J. Jermy; Lloyd Brothers; Manila, Bureau of Forestry; J. B. S. Norton; A. Rea; E. T. Seton; F. W. Thurow; E. P. Van Duzee; H. Weigel.)

Aitken, J. B., Widnes, England (received through British Royal Commission at the Louisiana Purchase Exposition): Samples of chemicals, etc. (44554: from the Louisiana Purchase Exposition).

Albers, August, Cincinnati, Ohio (received through R. S. Bassler): 25 Ordovician fossils from Ohio and Kentucky (43531).

Alcock, Maj. A. (See under Calcutta, India, Indian Museum.)

Aldrich, Charles. (See under Iowa, Historical Department of.)

Aldrich, T. H., Washington, D. C.: 2 specimens of *Somatogyrus walkeriana* Aldrich (from type lot) collected in the southern part of Alabama (44209).

Alfaro, Anastasio, director, Museo Nacional, San José, Costa Rica: 117 birds' skins from Costa Rica and Guatemala (43221: exchange); 7 birds' skins from Costa Rica (44592: gift); 636 birds' skins from Costa Rica (44609: gift).

Allen, J. I., Columbus, Mont.: Indian hairbrush made from a strip of porcupine (43859).

Allison, Andrew, Lake Charles, Belair, and New Orleans, La., and Bay St. Louis, Miss.: 77 plants from Louisiana (42937: collected for the Museum); reptiles, 4 skins and skulls of mammals, and water lilies from Louisiana (42951: collected for the Museum); 5 mammals from Louisiana (42992: collected for the Museum); 317 plants from Louisiana (43008: gift); 36 birds' eggs (43029: collected for the Museum).

Altamirano, Fernando, Instituto Medico Nacional, City of Mexico (received through J. N. Rose): "Walking-stick," *Pseudosermyte truncata* Caudell (42955).

Alter, N. Berton, Fort Hunter, N. Y.: Human bones and objects found in an Indian burial place near Fort Hunter; also collection of prehistoric relics from village sites in the same locality (43533, 44495).

Ambrosetti, Juan B. (See under Argentina Department of Agriculture.)

Ambrózy, Ludwig, Vienna, Austria: Collection of Wallachian costumes and household utensils from the southern part of Hungary (44098: exchange).

American Institute of Architects, Washington, D. C. (received through Glenn Brown, secretary and treasurer): Gold badge or pin of the American Institute of Architects (43501).

American Museum of Natural History, New York City: 227 pieces of Mexican pottery, collected by William Bauer, L. P. X. (43630: purchase); 2 ants (*Macromischa elegans* Wheeler) (43771: gift); Peruvian textiles (43854: exchange); casts of objects in the American Museum (43893: exchange); 4 plaster busts of Indians (44017: exchange); 4 crabs (44107: gift).

American Record Company, New York City (through J. O. Prescott): 24 gramophone records made by native Hawaiians (44335).

American Society of Civil Engineers, New York City (through Charles Warren Hunt, secretary): Badge of the society (43723).

Ames, Oakes, North Easton, Mass.: Orchid (*Lælia albida*) from the Ames Botanical Laboratory (43638: exchange).

Anderson, J. P., Lamoni, Iowa: Plant from Iowa (43299).

Anderson, Rev. R. W., Eagle Pass, Tex.: 2 Sphinx moths, or "Tomato-sphinx," *Phlegethontius* (*Sphinx*) *quinquemaculatus* Haworth (43373).

Andrews, A. H. Chicago, Ill. (through Brig. Gen. T. E. Wilcox, U. S. Army, retired): Fossil wood from Chicago (43802).

Angell, J. P., Pine Bluff, Ark.: Beetle (*Calosoma scrutator* Fabr.) (44444).

Anthony, E. S., Hobart, Tasmania: 7 chipped flints, finely chipped spearhead

3 polished axes; dilly-bag, and chippings from New South Wales (43027: exchange).

ARCHER-BURTON, L. J. G., Berlin, Md.: Copper penny of Edward VII, 1902 (43144).

ARGENTINA, SOUTH AMERICA, DEPARTMENT OF AGRICULTURE OF (received through Juan B. Ambrosetti): Samples of Argentine forestry collection (44594: from the Louisiana Purchase Exposition).

ARMSTRONG, R. B. (See under Treasury Department.)

ASHCRAFT, G. B., Montreal, Canada: Plant (*Epipactis viridiflora* (Hoffm.) Reichb.) from the vicinity of Montreal (43098).

ATKEISON, RICHIE, Atkeison, Ala.: Wheelbug, *Prionidus cristatus* L. (43245).

ATKINSON, G. W., D. W. CUNNINGHAM and C. E. DOOLEY, Charleston, W. Va.: Moonshiner's still, with cap and worm, seized in the Flat Top Mountains of West Virginia (43856).

AUSTIN, GEORGE M., Wilmington, Ohio: 20 specimens of *Lichenocrinus* from the Richmond group of Ohio (43837).

AYMÉ, L. H., U. S. consul, Para, Brazil: 6 eggs of Hoatzin, *Opisthocomus hoatzin* (43147); turtle-shaped pottery object from the island of Marajo, Brazil (43768).

BABCOCK, Mrs. P. H., Hudson, Ohio: Basket made from long pine needles by an aged colored woman in South Carolina (43461).

BACHTELL, W. L., Joplin, Mo.: Large calcite crystal (42965: purchase); example of marcasite radiation (43349: gift).

BAILEY, M. A., New Orleans, La.: Luna moth, *Actias luna* Linn. (44584).

BAILEY, VERNON, Department of Agriculture: 26 plants from Arizona, Colorado, New Mexico, and Texas (43152, 43205, 43278, 43375, 43426, 43427, 43537). (See also under Department of Agriculture.)

BAIN, H. T. (See under J. Morgan Clements.)

BAKER, C. F., Santiago de las Vegas, Cuba: 120 cryptogamic plants from Nicaragua and California (43020: purchase); 46 plants from California (43261: purchase); 39 Lepidoptera (43468: gift); 31 Diptera from Cuba (43569: gift); 38 shells from Cuba (43705: gift); 4 plants from California (43924: gift); crustaceans (44266: gift).

BAKER, C. F., Chicago Academy of Sciences, Chicago, Ill.: 3 pond snails, *Linnæa auricularia*, and 40 specimens of *Vitrea draparnaldi* from Chicago (44023).

BAKER, FRED., San Diego, Cal.: 2 marine shells from California and a marine shell from Japan (43266).

BALDRIDGE, Mrs. MARIA, Los Angeles, Cal.: 10 mollusks and 2 ostracods (43766).

BALDWIN, J. E., Chadds Ford, Pa.: 2 composite plants, *Troximon pomiferum* Raf., from Pennsylvania (43761).

BALES, E. N., Washington, D. C.: Covered jar and a brass metric rule, obtained from the military pharmacy in the old walled city, Quartel Mesa, Philippine Islands (10349: loan).

BALL, C. R., Washington, D. C.: 22 specimens of American willows (44048). (See under Department of Agriculture.)

BALL, Mrs. MAUDE M. (See under Interior Department, U. S. Geological Survey.)

BALL, W. P. (See under Interior Department, U. S. Geological Survey.)

BANNON, T. M., Phoenix, Ariz.: 8 plants from Arizona (44152).

BARBER, A. W., Washington, D. C.: Wooden arrow shaft with obsidian head (43894); coprolites from Mount St. Helen, Oregon (43901); 3 skulls and archeological objects from the sand mounds of Florida (44219). (See also under Peter Raulerson.)

BARBER, C. A. (See under W. L. McAtee.)

BARBER, H. S., U. S. National Museum: Plants and mollusks from Texas and insects from Virginia (42950, 43175, 44587: collected for the Museum; 44109, 44133: gift). (See also under R. P. Currie and E. A. Schwarz.)

BARBER, MANLY D., Knoxville, Tenn.: Fresh-water and land shells (43737).

BARBOUR, THOMAS. (See under Museum of Comparative Zoology, Cambridge, Mass.)

BARCLAY, J. C. (See under Western Union Telegraph Company.)

BARLOW, Gen. J. W., U. S. Army (retired), New London, Conn.: 445 birds' eggs from North America (42998).

BARNES, WILLIAM, Decatur, Ill.: 92 insects (44269).

BARRETT, O. W., Porto Rico Experiment Station, Mayaguez, Porto Rico: 3 hymenopterous parasites from *Cemiostoma coffeella* (*Chrysocharis livida* Ashm.) (43216) 3 chalcidoid flies (43677); 4 parasitic

Hymenoptera (43977); parasitic Hymenopteron (*Chalcis annulata* Fabr.) (43997).

Bartsch, Paul, U. S. National Museum: 60 mollusks from Iowa (43088: gift); 5 specimens of prickly pear (*Opuntia*) from Illinois (44591: collected for the Museum).

Bassler, R. S., and E. O. Ulrich, U. S. National Museum and U. S. Geological Survey: Types of 40 species of Tertiary ostracoda (43718).

Bassler, R. S. (See under August Albers; Interior Department, U. S. Geological Survey; R. R. Rowley; E. O. Ulrich).

Bates, G. L., Galesburg, Ill.: 30 small mammals (43813: purchase).

Bates, Mrs. Margaret, Washington, D. C.: Glass sponge (*Euplectella*). Received through O. T. Mason (44360).

Bauer, William. (See under American Museum of Natural History, New York City, and Smithsonian Institution, Bureau of American Ethnology.)

Beach, Maj. William D., U. S. Army. (See under War Department.)

Bean, B. A., U. S. National Museum: Fishes, crustaceans, mollusks, and reptiles, collected for the Museum in the western part of Maryland (43077).

Bean, George T. (See under Department of Commerce and Labor, Bureau of Fisheries.)

Beckwith, Paul, U. S. National Museum: Moro mouth-harp, Igorot earring, and Kaffir bracelet (42969); United States $10 gold piece of the issue of 1893 (43064: exchange); gilt G. A. R. official badge used at the Boston encampment in 1904 (43161); musical instrument "zobophone" (43190); English vest-pocket pistol (43388); printed portraits of prominent members of the Society of the S. A. R. (43398); 4 complete clips, from Cuba, of fixed ammunition for a Lee rifle (43580); programme of ceremonies at the unveiling of the statue of Frederick the Great, November 19, 1904 (43623); Roman coin (44057); invitation to the inauguration reception of President Grant and Vice-President Colfax, March 4, 1869 (44248); Spanish Mauser rifle of Argentine pattern (44451).

Beckwith, Thomas, Charleston, Mo.: 10 photographs of the archeological collection of the donor (43581).

Beebe, D. G., Minneapolis, Minn.: 2 specimens of Celebes giant swift, *Chætura celebensis*, a species rare in collections (43925).

Beede, E. L., Drewsey, Oreg. (received through George F. Kunz): Opalized wood (43148); impure opal and other material (43405); specimens of obsidian from Oregon (43742).

Bement, Clarence S., Philadelphia, Pa.: 2 specimens of pyrite (showing dodecahedral planes), from Colorado, and a specimen of datolite from Westfield, Mass. (44465).

Benar, Mrs. R. H., New York City: 2 Cockroach parasites, *Evania appendigaster* Linn. (43135).

Bender, Harry, Walters Park, Pa.: Photograph of Frank Bender and his family (43219).

Benedict, J. E., U. S. National Museum: Crustaceans and insects from Vancouver Island, British Columbia (44285: collected for the Museum); crustaceans and diatoms from Portland, Oreg. (44292: collected for the Museum); larvæ of Caddis-flies and mosquitoes (44299: gift); isopods and shells from Portland, Oreg. (44393: collected for the Museum); insect galls (44518: gift); invertebrates from Vancouver Island (44577: collected for the Museum).

Benguiat, H. E., and Son, San Francisco, Cal.: Jewish ceremonial objects (10128: loan).

Benguiat, Hadji Ephraim, San Francisco, Cal.: Metal tray with Hebrew inscriptions (10177: loan).

Bennett, B. J. (See under Thetford Mines, Quebec, Canada.)

Berg, L., Custodian of the Department of Ichthyology, Zoological Museum of the Imperial Academy of Sciences, St. Petersburg, Russia: 2 parasitic Hymenoptera from Syr-Darya, Russian Turkestan (44226).

Berger, A., La Mortola, Italy: 2 plants from Italy (43432: exchange).

Berlin, Germany, Royal Botanical Museum (Universitäts-Institute) (received through A. Engler, director): 5 specimens of *Polypodium setosum* (Kaulf.) Mett, from Brazil (43528: gift); 4 plants from Mexico (44081: exchange).

Berry, S. S., Redlands, Cal.; 4 shells from California (42966).

Besselievre, Sidney I., chief clerk, Bureau of Construction and Repair, Navy Department, Washington, D. C.: 3 plans of the old frigate *Constitution* (44359).

Bimel-Ashcroft Manufacturing Company, Poplar Bluff, Mo.: 2 pieces of wood containing the larva of a "Golden-eyed fly," *Chrysopa* (43418).

Bixby, Maynard, Salt Lake City, Utah: Specimen of pink beryl from Dugway district, Utah (44059).

Black, E. W., Soldiers' Home, D. C.: Specimen of fulgurite from near North Loup, Nebraska (42940).

Blackburn, J. W., Washington, D. C.: Snake, *Cemophora coccinea*, from Anacostia, D. C (43693).

Blackford, C. M., Bivalve, Va.: Gall and larva of *Gelechia gallæ-solidaginis* Riley (42954).

Blackiston, A. H., Spokane, Wash.: Pottery from Chihuahua, Mexico (10030: loan); 45 specimens of pottery and stone objects from Arizona, West Virginia, and Mexico (10287: loan).

Blackwelder, Eliot, Morgan Park, Ill.: 20 birds' skins from Illinois, including a specimen of Kirtland's Warbler, *Dendroica kirtlandi* (43507); 448 beetles from China (43929). (See under Carnegie Institution.)

Blake, Lady Edith, Kandy, Ceylon: 3 unmounted photographs, 3 by 10, of native Veddos, Province of Una, Ceylon (43073).

Blatchley, W. S., Indianapolis, Ind.: 4 Orthoptera (43469: gift); 2 Orthoptera, *Xiphidium attenuatum* (43957: exchange).

Blunt, H. W. (See under Miss Mary Giles.)

Bogue, Ruth, Pomona, Cal.: 8 plants from Cal. (42933).

Bonsall, Sarah W., Philadelphia, Pa.: Basket made by Cassie Price, an inmate of the Pennsylvania Industrial Home for Blind Women (43912).

Boone, Gossett. (See under Smithsonian Institution, Bureau of American Ethnology.)

Boulenger, G. A. (See under London, England, British Museum, Natural History.)

Bouvier, E. L. (See under Paris, France, Museum of Natural History.)

Bowers, Samuel, Bisbee, Ariz.: 6 caseworms (43235).

Bowers, Stephen, Los Angeles, Cal.: Albite, tourmaline, topaz, and quartz from near Ramona, San Diego County, Cal. (43722).

Bowles, Rev. A. C., Gloucester, Mass.: Moths, *Noctua clandestina* Harris (43412).

Bowman, J. J., Lancaster, Pa.: Single-barreled shotgun made by James Golcher (44513).

Brackett, Mrs. Rose McHenry. (See under National Society of the Dames of 1846.)

Bradford, Alfred, Brightwood Park, D. C.: 32 hand-made horseshoe nails (43799).

Bradford, G. M., Bay City, Mich. (received through David White): 18 fossil plants from Bay City (43902).

Bradford, Miss M. M., Avery Island, Ala.: 2 unfinished Chetimacha Indian baskets (43075).

Bradford, Mrs. S., Charenton, La. (received through Smithsonian Institution, Bureau of American Ethnology): Plant from Louisiana (43012).

Brandegee, T. S., San Diego, Cal.: 170 plants from Mexico, collected by C. A. Purpus (43006); 4 plants (with photographs) from Mexico (44519: exchange). (See also under Department of Agriculture.)

Branner, J. C., Leland Stanford Junior University, Stanford University, Cal.: 6 photographs of travertine quarries at Bagni, near Rome, Italy (44543).

Braunton, Ernest, Waterman, Cal.: 31 plants from California (42934; 43201[a]; 43298; 43455; 43889[a]; 43896; 44308).

Brazilian Commission at the Louisiana Purchase Exposition: Dugout canoe, fisherman's raft, fisherman's boat with sail, etc. (44419).

Brearley, W. H., Tombstone, Ariz.: Plant (43420); 2 *cacti* from Arizona (43428).

Bridges, T. M., Idaho Falls, Idaho: Immature cockroach, probably *N. holosericea* Burmeister (44244).

Brimley Brothers, Raleigh, N. C.: Coleoptera, Neuroptera, Hemiptera, and Lepidoptera (44146).

[a] Exchange.

British Museum (Natural History). (See under London, England.)

British Royal Commission at the Louisiana Purchase Exposition. (See under J. B. Aitken; Walter Carson & Sons; Chamber of Commerce; Chance & Hunt, Limited; H. C. Fairlie & Co.; Royal Geographical Society; Sheppey Glue and Chemical Works, Limited; South Metropolitan Gas Company, and Spencer Chapman & Messel, Limited.)

Britton, N. L. (See under New York Botanical Garden.)

Britton, W. E., State entomologist, New Haven, Conn.: Types of mealy-winged fly, *Mesoptoles acteæ* Britton, with larvæ and pupæ (43797).

Britts, J. H., Clinton, Mo.: 6 Carboniferous fossil plants (43890).

Brockway, William, Oaxaca, Mexico: 8 plants from Mexico (43109).

Brooks, Allan, Okanogan Landing, British Columbia: Cyprinoid fish, with parasite—the larval form of the cestoid worm (*Ligula simplicissima*), commonly found with these fishes (44448).

Brooks, Luis, Santiago, Cuba: Head of a Cuban Long-eared owl, *Asio stygius* (44019).

Brotherton, W. A., Rochester, Mich.: Plants from Michigan (43279).

Brown, A. J., Sulphur City, Ark. (received through M. W. Lyon, jr.): Fossil plant representing the species *Lepidodendron obovatum* Sternberg, from the lower part of the Upper Carboniferous formation (43454).

Brown, Miss E. L., Landore, Idaho: Homopterous insect, *Clostoptera xanthocephala* Germar (42981).

Brown, Glenn. (See under American Institute of Architects.)

Brown, Mrs. John Crosby, Metropolitan Museum of Art, New York city: Violin and bow made by the Texcoco Indians of Mexico (44173); cast of Peruvian stone syrinx (44462: exchange).

Brown, Nathan Clifford, Camden, S. C.; Portland, Me.; Graham, N. H.: 17 birds' skins from South Carolina (43933; 44155); 35 birds' skins from Coos County, N. H. (44617).

Brown, Rev. Robert, Philippine Weather Bureau, Manila, Philippine Islands: Lepidoptera and Odonata (43105); insects from the Philippine Islands (43125; 43157); parasitic Hymenoptera (43513); hymenopterous parasite and a moth (43409); parasitic Hymenoptera, Hymenoptera, Diptera (43774; 44066; 44157; 44362; 44515).

Browne, Alice Key, Estate of (received through William D. Hoover, Trust Office, National Safe Deposit Savings and Trust Company, Washington, D. C.: 2 chairs of rosewood inlaid with brass, formerly the property of Chief Justice John Marshall (44461).

Brusina, S., Zagreb (Agram), Croatia, Austria-Hungary: About 2,500 mollusks, a bird, and specimens of the crustacean *Brachiella thynni* (43458: exchange).

Bryan, J. M., Dania, Fla.: Orchid from Florida (44126).

Bryan, Capt. R. B., U. S. Army, Fort Grant, Ariz. (received through Brig. Gen. T. E. Wilcox (retired): 3 plants from Arizona (43584).

Bryant, Owen, Boston, Mass.: 3 specimens of *Cæciloides acicula* from Bermuda (43701); 7 specimens and 3 eggs of *Pyramidula striatella* Anth., from Massachusetts (44355; 44619); egg of Red-eyed vireo, *Vireo olivaceus* (44488).

Bryant, Theodore, Wellington, British Columbia: Lepidoptera (44263).

Buchanan, Charles H. (See under Mrs. J. P. Platt.)

Buchanan, W. R., Washington, D. C.: White fetus (43393).

Bulkley, L. C., Avalon, Alden Bridge, Bossier Parish, La.: Indian hematite plummet or sinker (43145).

Bunnell, Charles E., Valdez, Alaska: Skull of Steller's Sea lion, *Eumetopias jubata* (44375).

Burmeister, W. L., Chicago, Ill.: Stone axe from Davenport, Iowa (43239: exchange).

Busck, August. (See under Edward Meyrick.)

Bush, B. F., Courtney, Mo.: 10 specimens of grasses from Missouri (43440: gift); 12 plants from Texas (43740: exchange); 511 plants collected by J. Reverchon in Texas (44127: purchase); 25 plants from Arkansas (44291: gift).

Bushnell, D. I. (See under Smithsonian Institution, Bureau of American Ethnology.)

Butler, Charles M., Morenci, Mich.: 2 skins of Virginia rail, *Rallus virginianus*, from Michigan (44320).

Butler, F. W. A., Edgefield, S. C.: Plant from South Carolina (43207).

Button, Fred. L., Oakland, Cal.: 3 marine shells from San Pedro Bay, Cal. (43607).

Buysson, Robert du, Paris, France: 4 Chalcid flies from Céres, Argentine Republic (44104).

Calcutta, India, Indian Museum (received through Maj. A. Alcock, superintendent): Crab, *Lambrus echinatus* (43404: exchange).

Calcutta, India, Royal Botanical Gardens: 172 plants from India (43116: exchange).

California Academy of Sciences, San Francisco, Cal.: 225 plants from California (43015); plant from California (44197). Exchange).

California State Mining Bureau, San Francisco, Cal.: Large mass of diatomaceous earth (44193: from the Louisiana Purchase Exposition).

California, University of, Botanical Garden, Berkeley, Cal.: Plant from California (43178: exchange).

Call, S. J., Steamer *Thetis*, Sausalito, Cal.: 45 birds' eggs and a bird's nest from Unalaska (44188).

Cambridge, England, University Museum of Zoology (received through S. F. Harmes, superintendent): 2 birds (*Turnagra crassirostris*) from New Zealand (44140: exchange).

Canadian National Herbarium, Ottawa, Canada: 100 plants from Canada (43610: exchange).

Canby, W. M., Wilmington, Del.: 14 plants from the United States and Mexico (43031).

Cannon, W. A., San Diego, Cal., and Tucson Ariz.: 9 plants and some seeds from Arizona and California (43431; 43477; 43521; 43637).

Canu, Mon. F., Versailles, France: About 1,000 specimens (150 species) of Cretaceous and Tertiary bryozoans (44065: exchange); 300 specimens of fossil ostracoda (44351: purchase); about 300 specimens of European Tertiary fossils (44352: purchase).

Carnegie Institution, Washington, D. C.: Collection of vertebrates from Eastern and Central China, collected by Mr. Eliot Blackwelder, under the auspices of the Institution (43892).

Carnegie Museum, Pittsburg, Pa. (received through Douglas Stewart, assistant director): Model of the earliest type of passenger car used on the Pennsylvania Railroad; model of a passenger car used in the year 1857, with a section of track, and model of a car used by the Mohawk and Hudson River Railroad Company, with track (43055); (received through A. E. Ortmann), 3 cotypes of Crustacean, *Cambarus monongalensis* Ortm. (43684).

Carson, Walter, & Sons, London, England (received through the British Royal Commission at the Louisiana Purchase Exposition): Samples of colors, varnishes, saucers, plates (44559: from the Louisiana Purchase Commission).

Cary, Merritt. (See under Department of Agriculture.)

Case, A. B., Alamos, Sonora, Mexico: 9 living specimens of Cactaceæ from Mexico (44569: purchase).

Cashall, William C., Centralia, Kans.: Old-style bayonet (44356).

Cathcart, Miss E., Cassells, Colo.: 4 plants from Colorado (42948; 42970). (See under Department of Agriculture.)

Caudell, A. N., Department of Agriculture: 300 insects from Ocean View, Va. (44251). (See under H. G. Dyar.)

Ceylon Commission at the Louisiana Purchase Exposition: 5 brass Ceylonese lamps (44416); Jaffna collection of ethnological specimens (44421); large collection of objects illustrating the pearl fisheries of Ceylon (44578); edible birds' nest, 2 birds and accessories (44600). Purchase.

Chamber of Commerce (received through British Royal Commission at the Louisiana Purchase Exposition): Photographs of people and scenery in Jamaica (44418).

Chamberlain, E. B., Chamberlain Center, Me.: 356 plants from Maine and Rhode Island (43127; 43692: exchange).

Chamberlain, F. M. (See under Department of Commerce and Labor, Bureau of Fisheries.)

Chance & Hunt, Limited, Oldbury, England (received through the British Royal Commission at the Louisiana Purchase

Exposition): Samples of chemicals, etc. (44553).

Chandler, H. P. (See under Department of Agriculture.)

Chapman, E. M., Washington, D. C.: Skeleton excavated near Tottenville, Staten Island, N. Y. (43952).

Chickahominy Tribe (received through Chief William H. Adkins, Bradley's Store, Va.): Piece of old Indian pottery (43038).

Chouteau, Pierre, St. Louis, Mo.: Silver medal struck in commemoration of the battle of Islinga (43617).

Christ, H., Basel, Switzerland: Fern (*Polypodium*) from Brazil (43527).

Christiani, Fritz, Washington, D. C.: Parasitic wasp (*Dasymutilla orientalis* Linn.) (44025).

Christie, Mrs. Cora A., Washington, D. C.: Mexican and Norwegian ethnological objects (43849).

Cilley, Henry, U. S. Pension Office, Washington, D. C.: Sword and scabbard of Jonathan Cilley, first lieutenant and adjutant, First Battalion, Forty-third U. S. Volunteer Infantry (44007).

Clapp, G. H., Pittsburg, Pa.: 3 cotypes of *Omphalina pilsbryi* Clapp from Wetumpka, Ala. (43251); cotypes of 2 species of mollusks (43652).

Clare, B. W., Lordsburg, N. Mex. (received through Walter Hough): Samples of gold-copper ore from the Empire State Mining Company's mines, Cochise County, Ariz. (44567).

Clark, H. W. (See under F. L. Ransome.)

Clark, H. W. (See under Department of Commerce and Labor, Bureau of Fisheries.)

Clarke, F. W. (See under Isador Wise.)

Clarke, John M. (See under Geological Survey of New York.)

Clements, J. Morgan, New York City (received through H. T. Bain): 17 specimens of Jurassic(?) invertebrates from Cerro del Paso, Peru (43451).

Clements, Percy. (See under Verde Antico Marble Company.)

Clowry, R. C. (See under Western Union Telegraph Company.)

Cockerell, Prof. T. D. A., Boulder, Colo.: Type specimen of hymenopterous insect (*Mutilla cockerelli* Melander); type specimen of dipterous insect (*Diplosis colorado-della* Ckll.) and 30 other insects (43770); land, fresh-water, and marine shells from various localities (43875); 27 insects, including 3 types (44252).

Cockle, J. W., Kaslo, British Columbia: 10 moths and a moth larva (43958).

Colladay, W. E., Treasury Department, Washington, D. C.: Larva of butterfly (*Papilio troilus* Linn.) (43268).

Collier, A. J., Washington, D. C. (received through Department of Agriculture): 12 cryptogams from St. Matthews Island, Alaska (43442).

Collins, F. S., Malden, Mass.: 50 algæ (43250); 50 plants (43903: purchase).

Colonial Museum. (See under Wellington, New Zealand.)

Commerce and Labor, Department of, Hon. Victor H. Metcalf, Secretary.

Transferred from Bureau of Fisheries: Collection of fishes made by the steamer *Albatross* in the Straits of Magellan and northward (42990); crustaceans and mollusks collected by the *Albatross* in 1902 at the Hawaiian Islands, and in Alaska in 1903 (43016); invertebrates and mollusks from the coast of California, collected by the *Albatross* and transmitted by C. H. Gilbert (43026); types and cotypes of Hawaiian fishes collected by the *Albatross* (43076); 164 plants from Indiana collected by J. T. Scovell (43123); specimen of angler (*Lophius piscatorius*) from near St. Johns, Newfoundland, and specimens of foraminifera from the Hawaiian Islands collected by the *Albatross* (43265); 82 plants from Indiana (43331); alcoholic specimen of a three-legged frog (43363); type specimen of shark (*Catulus brunneus*) taken in the Pacific Ocean, south of San Clemente Island, by the *Albatross* (43364); invertebrates transmitted from Woods Hole by Vinal N. Edwards (43397); reptiles and batrachians collected by B. W. Evermann in California (43439); 3 lizards and a frog, collected by J. W. Titcomb in South America (43486); 60 turtles from Lake Maxinkuckee, Indiana (43511); 4 negatives of the monument erected to Captain Cook, the Hawaiian explorer (43512); received through B. W. Evermann 33 turtles, 6 snakes, 18 frogs, 7 toads, a salamander, 28 crawfishes, and 131 mollusks, principally from the vicinity of

Lake Maxinkuckee, Indiana (43542); collection of fishes from Beaufort, N. C., made by E. M. Gudger, G. T. Bean, and others (43551); aquatic plants, principally Charas, from Lake Maxinkuckee, Indiana (43573); 25 birds' skins, bird's nest and eggs, 2 mammal skins and skulls (43597); fishes from the aquarium of the Fisheries Building at the Louisiana Purchase Exposition (43624); collection of Samoan fishes made in 1902 by David S. Jordan and V. L. Kellogg under the auspices of the Bureau of Fisheries, and transferred from Leland Stanford Junior University (43712); type specimen of *Leuciscus evermanni* Juday from Boulder Creek, Boulder County, Colo. (43734); fishes collected in the Mississippi River at Bellevue, Iowa, under the direction of R. S. Johnson, superintendent (43822); type specimen of *Hemirhamphus cotnog* and type specimen of *Gobius sternbergi* from the Philippine Islands (43823); 22 bottles of samples of ocean bottom collected by the *Albatross* on the coast of California (43844); fishes collected by T. H. Bean, at Long Island, N. Y. (43971); fishes from the western coast of the United States (California to Alaska and Bering Sea), and from the eastern coast, from Nova Scotia to Key West, Fla., Porto, Rico, Mexico, inland from Lake Ontario, and elsewhere (43972); 5 boxes of Echini collected by the *Albatross* during the Agassiz Expedition of 1891 (43973); fishes from Samoa (44040); fishes from the Hawaiian Islands collected during 1901–2 (44041); 120 plants collected by Cloudsley Rutter in Alaska (Kadiak Island and presumably in the vicinity of Karluk, Karluk River, and Karluk Lake) (44049); crustaceans, frogs, and shells collected in Argentina by John W. Titcomb (44166); second series of fishes collected by the *Albatross* in the Southern Pacific Ocean during 1899 (44194); two vials of cysts from a porpoise, and 2 slides of the same (44282); mollusks and other invertebrates obtained by the *Albatross* in the Hawaiian Islands and the southern part of California (44506); 127 plants collected in Arizona, New Hampshire, and Indiana by F. M. Chamberlain, W. C. Kendall, E. L. Goldsborough, A. A. Doolittle, and H. W. Clark (44573). (See under E. T. Seton.)

Comstock, John, Evanston, Ill.: Lepidoptera from Colorado and a specimen of composite from British Honduras (43627).

Conard, H. S., Philadelphia, Pa.: 26 plants from Washington (43108); 312 plants (43107). Purchase.

Continuous Rail Joint Company of America, Newark, N. J.: 6 2-inch sections of typical railroad rails collected at the Railway Appliance Exhibit in Washington, D. C., May 13, 1905 (44302).

Convent of Mary Immaculate, Key West, Fla.: Mollusks, echinoderms, sponges, crustaceans, plants, insects, and geological material (44210).

Cook, M. F., Santiago de las Vegas, Cuba: Cynipid gall (*Neuroterus rileyi* Bassett) (42961).

Copenhagen, Denmark, Zoological Museum (received through H. J. Hansen): 8 specimens of a crustacean (*Sergestes atlanticus*) (44378); (received through F. Meinert): 3 crabs (43658). Exchange.

Cordova, Julian de. (See under Union Glass Company, Somerville, Mass.)

Cotton, J. S. (See under Department of Agriculture and C. V. Piper.)

Court, J. E., Washington, D. C.: 1,000 mollusks from Piney Point, Md. (43150).

Coville, F. V., Department of Agriculture: 433 plants from New York (44063).

Cowan, Alex., London, England: 2 ferns from England (43874).

Cowles, R. P., Gulf Biological Station, Cameron, La., and Johns Hopkins University, Baltimore, Md.: 6 specimens of a crustacean (*Clibanarius vittatus* Bosc.) (43007); about 100 land and marine shells (43065); crustaceans (43100); 40 mollusks from Louisiana (43195).

Cox, Theodore S., Brightwood, D. C.: 2 young screech owls, *Megascops asio* (44372).

Crawford, J. C., Bureau of American Ethnology, Washington, D. C.: 13 types and cotypes of North American insects (43763); cotype of hymenopterous insect (*Halictus cockerelli* Crawford) (43777).

Crevecœur, F. F., Onaga, Kans.: Larva of dipterous insect (*Anomœa laticlavia*) (44168); specimen of *Nautilus occidentalis* Swallow (44237).

CROPPER, Mrs. JOHN, Washington, D. C.: Doll from Khartum (44347).

CROSBY, C. R., Columbia, Mo.: 2 parasitic Hymenoptera (44103).

CROSBY, F. W., San Diego, Cal.: Barnacle from the beach at Port Orford, Oreg., also agate pebbles from the same locality (42946; 42952); rocks and ores from Oregon (43174); specimens of Josephinite and associated rocks from Illinois River, Oregon (43255); sample of a siliceous and calcareous deposit at Hot Springs, near Granger, Wyo. (43380); siliceous geyser tubes from near Granger, Wyo. (43790); Josephenite from Josephine Creek, Oregon (44060); diorite, sylvanite, and gold ore from Josephine Creek, Oregon (44061). Collected for the Museum. (See also under Frank L. Peck, G. C. Robbins, C. W. Thompson and V. M. Woodworth.)

CROSBY, M. A. (See under Department of Agriculture.)

CROSS, WHITMAN. (See under Interior Department, U. S. Geological Survey.)

CROWLEY, T. W. (See under Delaware and Hudson Company.)

CROZIER, Brig. Gen. WILLIAM, U. S. Army. (See under War Department.)

CUMMINGS, C. E., Wellesley, Mass.: 10 lichens (43975 exchange).

CUMMINGS, Mrs. D. L., Houlton, Me. (received through W. C. Kendall): About 500 freshwater shells from Maine (43667).

CUNNINGHAM, D. W. (See under G. W. Atkinson.)

CURRIE, R. P., E. A. SCHWARZ, and H. S. BARBER, U. S. National Museum: 768 insects from Plummers Island, Maryland, and vicinity (43743). (See under Rev. R. P. Longinos Navas.)

CURTIS, W. E., Washington, D. C.: Bricks of tea from Hankow, China (43880).

CURTISS, A. H., Jacksonville, Fla.: 183 plants from the Bahamas (43483: gift); 300 plants from the West Indies (44472: purchase). (See under New York Botanical Gardens.)

CUSICK, W. C. (See under Department of Agriculture.)

C., E. A., Bonne Terre, Mo.: Cossid-moth, *Prionoxystus robinæ* (44446).

DALE, T. NELSON. (See under Interior Department, U. S. Geological Survey.)

DALL, MARCUS, Washington, D. C.: 70 land and fresh-water mollusks and 5 phyllopod crustaceans from California (43192).

DALL, W. H., U. S. Geological Survey, Washington, D. C.: 433 species of mollusks and brachiopods (about 1,500 specimens), principally from the western coast of America and Japan (44032). (See under Interior Department, U. S. Geological Survey; and under Sowerby and Fulton.)

DANIEL, J. W., jr., Washington, D. C.: 4 sets of eggs of birds of prey (43782); 15 eggs (5 sets) of the American Rough-legged hawk, *Archibuteo lagopus sancti-johannis* (43891); 3 eggs (1 set) of Ferruginous rough-leg, *Archibuteo ferrugineus* (43935); nest, 4 eggs and sitting bird of Bewick's wren, *Thryomanes bewickii* (44468); 14 birds' eggs and 5 birds' nests, 17 birds, 48 mammals, and 4 reptiles from Lake Drummond, Dismal Swamp, Virginia, collected by Dr. W. L. Ralph and Mr. Daniel (44469).

DANIEL, Miss NANNIE T., Washington, D. C.: 2 snakes and a turtle (43599).

DANIELS, L. E., Laporte, Ind.: Reverse of types of 8 species of fossil insects from Mazon Creek, Illinois (43744).

DANVILLE, A. (See under Southwestern State and Manufacturing Company, Slatington, Ark.)

DARLINGTON, E. H., West Chester, Pa.: 3 specimens of chestnut weevil (43372).

DARTON, N. H. (See under Interior Department, U. S. Geological Survey, and F. Ohm.)

DAVENPORT, HOMER, Morris Plains, N. J.: 3 Magellan geese (43049); a Vulturine guinea fowl, *Acryllium vulturinum*, and a Magellan goose (*Chlœphaga* sp.) (43056); 2 birds (43556); a Crowned pigeon, *Goura coronata* (43625); an African spur-winged goose (43807); 3 birds (43979); a Gallinule (*Porphyrio* sp.) (44298); a Crowned pigeon, *Goura coronata*, and a specimen of Sonnerat's jungle fowl, *Gallus sonnerati* (44504); Egyptian goose, white peacock, and a Refulgent pheasant (44610); Refulgent pheasant (44611).

DAVIS, C. LESTER, Le Roy, Kans.: Fossil plant (43524).

DAVIS, S. AUSTIN, Guayaquil, Ecuador, South America: Weevil (*Macromerus* sp.) (44156).

Dawson, C. C., Cañon City, Colo.: Piece of a Navajo blanket (44165).

Day, C. L. (See under Interior Department, Office of Indian Affairs.)

Day, David T. (See under Interior Department, U. S. Geological Survey.)

Deam, C. C., Bluffton, Ind.: Plants from Indiana and Guatemala (43301: gift); (43401: exchange); (43639: exchange); 8 plants from Guatemala (44033: exchange); 43 specimens of Orthoptera (44158: gift).

Dean, Bashford, Columbia University, New York City: Fishes from the Nile River, Africa, collected by the Senff Expedition of Columbia University in July and August, 1899 (43618).

Delaware and Hudson Company, Albany, N. Y. (received through T. W. Crowley, superintendent of telegraph): 2 Morse telegraph registers (43184; 43583).

Demokidoff, K., St. Petersburg, Russia: 53 Russian Hymenoptera (43567); specimens of 6 species of parasitic Hymenoptera (43711); 37 specimens (7 species) of hymenopterous parasites (44361).

Denton, E. S., West Point, N. Y.: 10 living plants (44475).

Desert Botanical Laboratory, Tucson, Ariz. (See under Department of Agriculture.)

Dewey, L. H. (See under Department of Agriculture.)

Dickerson, Miss M. C., Providence, R. I.: Frogs from California (43824); batrachians (44105).

Dickinson, A. E., Maltby, Minn.: Fossil tooth (43104).

Dickinson, G. V. (See under Elgin National Watch Company.)

Dimmock, George, Springfield, Mass.: 56 beetles from Cuba (44385); hymenopterous parasites (44445).

Disbrow, W. S., Newark, N. J.: Minerals from New Jersey (44333: exchange).

Ditmars, R. L., New York Zoological Park, N. Y.: Lizard, *Sceloporus*, from California (43576).

(See under New York Zoological Park.)

Dod, F. H. W., Millarville, Alberta, Northwest Territory, Canada: 99 Lepidoptera (43809: gift); 65 moths (44138: exchange).

Dodge, Byron E., Davison, Mich.: Grooved stone ax (9510); 4 archeological specimens (9713); wedge-shaped stone, probably a water-worn quartzite pebble (9887); 2 prehistoric stone implements from Michigan (10121: loan).

Dodge, C. K., Port Huron, Mich.: 9 plants from Michigan (42973; 43003: gift; 43209: exchange); 4 plants from Ontario (43231: gift).

Dodge, G. M., Louisiana, Mo.: 3 Lepidoptera (*Thanaos*) (43910); 3 butterflies (43981).

Doll, Jacob, Brooklyn, N. Y.: 26 moths (43519: gift); 16 specimens of Lepidoptera (44024: exchange).

Dolle, C. F., Cincinnati, Ohio: Crab-spider, *Acrosoma gracile* Walck (43078).

Donaldson, Mrs. Lucy Ord. (See under Mrs. M. M. Kempter and Capt. James T. Ord, U. S. Army.)

Donne, T. E. (See under New Zealand, Government of, Louisiana Purchase Exposition.)

Dooley, C. E. (See under G. W. Atkinson.)

Doolittle, A. A. (See under Department of Commerce and Labor, Bureau of Fisheries.)

Dorman, Louis, U. S. Weather Bureau, Department of Agriculture: Ammonites from Linden, near Hanover, Germany (43348).

Doubet, C. A., Washington, D. C.: 5 watch movements (43913).

Dougherty, H. M., Charleston, S. C.: Samples of condemned stone intended for dry dock at Charleston (44622).

Douglas James, New York City: Pottery bowl and specimen of Indian carbonized corn (43815). (See under H. J. Simmons.)

Douglas, Mr., Curio Department, Boer War Company, Louisiana Purchase Exposition: 2 photographs of Kaffirs and album of photographs of ethnological objects (42977).

Dow, Capt. J. C., Coast and Geodetic Survey, Washington, D. C.: Hindu double figurine of bronze, dredged from the bottom of New Harbor, Manila, Philippine Islands (44428).

Dow, Mrs. Mary, Mount Vernon, Ill: Abnormal egg of a hen (43061).

Dowell, Philip, Port Richmond, N. Y.: 52 plants from Maryland, Virginia, and vicin-

ity, and from Staten Island, N. Y. (43183; 44240: gift and exchange).

DRAKE & STRATTON COMPANY, Washington, D. C.: 2 specimens of silicified wood (43554).

DRESDEN, GERMANY; ROYAL ZOOLOGICAL AND ANTHROPOLOGICAL-ETHNOGRAPHICAL MUSEUM (received through A. B. Meyer, director): Cast of a large ax made of jadeite (43050: exchange).

DUBBS, W. H., Limeport, Penn.: Stone implement (43678).

DUDLEY, J. H., Hoquaim, Wash.: Katydid (*Tropidiachira xanthostoma* Scudder) (43590).

DUGÈS, A., Guanajuato, Mexico: Eared trogon, *Euptilotis neoxenus*, from Zurumuato, Guanajuato, Mexico (43062): 5 plants from Mexico (43297; 43362); seeds of a plant from Mexico (43400); 5 plants (43434; 43504); insects (43661) Tanager (*Piranga bidentata*) from Tepic (43932).

DUNCAN, W. J., Snelling, S. C.: Long-eared owl, *Asio wilsonianus* (43578).

DURY, CHARLES, Cincinnati, Ohio: 9 insects (44317).

DUTTON, CLARENCE. (See under Interior Department, U. S. Geological Survey.)

DYAR, H. G., and A. N. CAUDELL, U. S. National Museum: 260 insects from Florida (44225).

EARLL, MRS. L. H., Chevy Chase, Md.: 489 plants from various localities (43346).

EASTWOOD, MISS ALICE, San Francisco, Cal.: 8 plants (42971); sedge, *Cyperus virens* Michx., collected by C. E. Jenney in California (43114); 6 living plants from Coahuila, Mexico (44003: exchange); fern (*Pellæa Wrightiana*), from California (44574).

EBERT, Maj. R. G., U. S. Army, Vancouver Barracks, Wash.: Plants from Vancouver and Washington (44076; 44196).

EDWARDS, Col. C. R., U. S. Army. (See under War Department.)

EDWARDS, J. J., Wallesboro, Ind.: 25 archeological specimens (43715).

EDWARDS, V. N. (See under Department of Commerce and Labor, Bureau of Fisheries.)

EGBERT, J. HOBART, U. S. Coast and Geodetic Survey, Washington, D. C.: Collection of natural-history specimens, geological material, and a human skull from Kiska Island, Alaska (43808). (See under Department of Agriculture.)

EGGLESTON, W. W., New York City: 350 plants from northern New England and Quebec (44123; purchase).

ELDRIDGE, GEORGE H. (See under Interior Department, U. S. Geological Survey.)

ELGIN NATIONAL WATCH COMPANY, Chicago, Ill. (received through G. V. Dickinson): Small watch movement (43302).

ELLIS, E. B., Granite Company, Northfield, Vt. (received through T. Starrett): Specimen of Bethel granite (43465).

EMMONS, Lieut. G. T., U. S. Navy, Princeton, N. J.: Arbutus-wood club used in killing seals, from western Vancouver Islands; and pouch with set of gambling sticks used by the Stikine River Indians of British Columbia (44143). (See under Smithsonian Institution, Bureau of American Ethnology.)

ENGLER, A. (See under Berlin, Germany, Royal Botanical Museum.)

EPPS, Miss EMILY, City Point, Va.: Plant from India (43571).

ERVING, R. M., Intervale, N. H.: 13 specimens of lower cryptogams from New Hampshire (44550).

ESHNAUR, Mrs. W. H., Terminal, Cal.: 3 mollusks, *Crepidula nivea*, var. *glottidiarum* Dall, on *Glottidia albida* Hds., from San Pedro, Cal. (44256).

EVERMANN, B. W., Bureau of Fisheries, Department of Commerce and Labor: 4 plants from California (43112). (See under Department of Commerce and Labor, Bureau of Fisheries.)

EWIN, J. L., Washington, D. C.: Austrian letters-patent (43214).

FAHNESTOCK, Mrs. LOUIS, Washington, D. C.: West African Love-bird, *Agapornis pullaria* (43834).

FAIRLIE, H. C., & Co., Camelon, Scotland (received through the British Royal Commission at the Louisiana Purchase Exposition): Samples of chemicals, etc. (44556).

FARISH, W. F., Washington, D. C.: Score of "My Blackbird," as sung by the donor (44026).

FARLOW, W. G. (See under Harvard University, Cryptogamic Herbarium, Cambridge, Mass.)

FARMVILLE LITHIA SPRINGS COMPANY, Farmville, Va.: Sample of lithia water from Farmville (42983).

FAXON, WALTER. (See under Museum of Comparative Zoology, Cambridge Mass.).

FELIX, J. (See under Leipzig, Germany.)

FELT, E. P., State entomologist, Albany, N. Y.: Parasitic Hymenoptera (43951).

FERGUSON, A. D., Kingsville, Tex.: 5 living plants from Texas (43696).

FERGUSON, J. M., Kingsville, Tex.: 6 plants from Texas (43570, 43503); a cactus (*Echinocactus*) from Texas (43619).

FERNALD, H. T., Amherst, Mass.: 3 cotypes of a dipterous insect (*Entomobrya albicollis* Franklin) (44102).

FERNEKES, Val., Milwaukee, Wis.: 28 moths (43453).

FERNOW, B. E. (See under Department of Agriculture.)

FIELD COLUMBIAN MUSEUM, Chicago, Ill. (received through F. J. V. Skiff, director): 6 sections of silicified bones of a Dinosaur (44583: exchange).

FISHER, C. A. (See under Interior Department, U. S. Geological Survey.)

FLETCHER, JAMES. (See under Rev. J. H. Keen.)

FLOWER, F. G., Seattle, Wash.: Spider (*Coriarachne brunneipes* Banks) (43843).

FOERSTE, A. F., Dayton, Ohio: Ordovician fossils from Kentucky (44289).

FOSTER, WILSON, St. Louis, Mo.: Copy of "Gold Fields," a newspaper printed on asbestos fiber (44097).

FOWKE, GERARD. (See under Smithsonian Institution, Bureau of American Ethnology.)

FOX, M., Vernon, Tex.: Toad, *Bufo woodhousei*, from Texas (43575).

FRAILE, M., Washington, D. C.: Plants (43082, 43013).

FRANCE, F. E., Platteville, Wis.: Cave material from a mound near Platteville (44265).

FRANCESCHI, F., Santa Barbara, Cal.: 2 plants from California (44384).

FRAZIER, A. H. (See under Winthrop, Gov. Beekman.)

FRENCH COMMISSION AT THE LOUISIANA PURCHASE EXPOSITION (received through Mons. E. Terquem): Collection of illustrations (44417).

FRENCH, G. H., Carbondale, Ill.: 8 Lepidoptera and 2 Odonata from the Philippine Islands (43270).

FRIEDHOLM, A. G., Waco, Tex.: Cacti from Texas (43804).

FRYETT, W. S., Los Angeles, Cal.: Springtails or Podurids, of the genus *Achoreutes* (43415).

FULCHER, WILLIAM, London, England: Section of an oak beam taken from the chapel of Newgate Prison, London, burned by the Gordon Rioters in June, 1780 (44395).

FURNISS, H. W. (See under Alvaro Guimeraes.)

GAILLARD, Maj. D. D., U. S. Army, St. Louis, Mo. (received through Brig. Gen. T. E. Wilcox, retired): 2 plants (*Larex occidentalis*) from British Columbia (43196); plant from South Carolina (43305).

GANIER, A. F., West Lafayette, Ind.: 5 birds (43180).

GARDNER, W. J., Washington, D. C.: 41 plants, collected by F. G. Taylor in Texas (43443).

GARMAN, H., Agricultural Experiment Station, Lexington, Ky.: evening primrose (*Anogra*) from Kentucky (44483).

GARRETT, A. O., Salt Lake City, Utah: Aster (*Petradoria pumila* (Nutt.) Greene) from Utah (43113).

GARROWAY, R. & T., Glasgow, Scotland (received through British Royal Commission at the Louisiana Purchase Exposition): Samples of chemicals, etc., used in the arts (44452).

GATES, E. D. (See under Gates Pottery Company.)

GATES POTTERY COMPANY, Terra Cotta, Ill. (received through E. D. Gates): Specimen of Teco pottery (43222).

GATLIFF, J. H. (See under Henry Suter.)

GAUT, J. H., Biological Survey, Department of Agriculture (received through Biological Survey): 3 unios from Indian Territory (43194); 3 plants from Oklahoma (43462); living cactus from Texas (44034); 3 living plants from Texas (44474). (See under Department of Agriculture.)

GEE, N. GIST, Soochow, China: 2 nests of Swift (*Tachornis infumatus* and *Micropus subfurcatus*) (43930); 4 insects (43943).

General Electric Company, Harrison, N. J. (received through A. D. Page): 20 incandescent lamps (43120); 17 incandescent lamps with fittings and with shades for one (43304).

Geological Survey of New York, Albany, N. Y. (received through John M. Clarke): 2 models of the crustacean genus *Hughmilleria*, showing the dorsal and ventral anatomy (43118).

German Ambassador. (See under Smithsonian Institution).

Gibson, R. C., Agana, island of Guam: 2 jew's-harps (43421).

Gilbert, Mrs. A. P., Logan, Okla.: A burrowing locust (*Stenopelmatus oculatus* Scudder) (43423).

Gilbert, C. H. (See under Department of Commerce and Labor, Bureau of Fisheries, and Leland Stanford Junior University.)

Gilbert, G. K., U. S. Geological Survey: Stone implement (43191). (See under Interior Department, U. S. Geological Survey.)

Giles, Miss Mary, Hagerstown, Md. (received through H. W. Blunt): Bomb found at the ford below Shepherdstown, W. Va., near Antietam (43494).

Girault, A. A., Paris, Tex.: 4 specimens of pteromalid hymenoptera and specimens of *Apanteles* (42958) (received through Bureau of Entomology, Department of Agriculture); Braconid hymenoptera (43413).

Girty, G. H., U. S. Geological Survey: 2 eggs of snake (*Diadophis*), from Pennsylvania (43376). (See under O. F. Hershey and Interior Department, U. S. Geological Survey.)

Glassford, Maj. William A., U. S. Army, Signal Service: Morse telegraph relay (44145).

Gleason, T. W., Bessemer, Ala.: Beetle (*Phengodes laticollis* Leconte) (44329).

Goding, F. W., American consul, Newcastle, New South Wales: 48 specimens of Cicadidæ and 18 miscellaneous insects (43561); stone ax which belonged to the Ourimbah tribe, once located about 40 miles south of Newcastle (44075).

Goldman, E. A., Biological Survey, Department of Agriculture: 311 plants from Mexico (43023); 184 eggs of Mexican birds (43130); 60 plants from Mexico (43534). Purchase. (See under Department of Agriculture.)

Goldsborough, E. L. (See under Department of Commerce and Labor, Bureau of Fisheries.)

Goldschmidt Thermit Company: A series of products and processes illustrating the use of mineral mixture (44580: from the Louisiana Purchase Commission).

Goldsmith, M., Newport, Ky.: Drawing on Ross paper, a lithographic drawing and a specimen illustrating the three-color process (44163).

Goodall, O. B., Department of Commerce and Labor: Spider (*Argiope argentea* Fabr.) (43234).

Goode, Mrs. Sarah, Middletown, Conn.: Antique muff and collar (43706).

Gordon, John, Smiths Ferry, Mass.: 3 photographs of archeological collection of the donor (43683: gift); 64 archeological specimens (43708: exchange).

Gorman, Roger, Manila, P. I.: 2 brains of Filipino natives (44358: purchase).

Gorman, R. W. (See under C. V. Piper.)

Goss, G. H., Waterbury, Conn.: Insects, birds, birds' eggs, mammals, and mollusks from Mount Kina Balu, Borneo (43119).

Gould, C. N., University of Oklahoma, Norman, Okla.: Selenite and massive gypsum from Taloga, Dewey County, Okla. (44192: from the Louisiana Purchase Exposition).

Government Laboratories. (See under Manila, P. I.)

Grahamstown, South Africa, Albany Museum (received through S. Schönland, director): Stone implements from South Africa (43544: exchange).

Grant, C. V., Irving College, Tenn. (received through E. S. Steele): 3 plants (43083).

Grant, G. B., Pasadena, Cal.: Plant from California (42947).

Gray, A. P., jr., Middleway, W. Va.: Hymenopterous insect (*Thalessa lunator*) (44386).

Gray Herbarium, Harvard University, Cambridge, Mass.: 2 plants from Brazil and Guatemala (43169: exchange).

Greely, A., and A. W. (See under Department of Agriculture.)

GREELY, Gen. A. W., U. S. Army, Chief Signal Officer, War Department, Washington, D. C.: About 300 marine shells from the Philippine Islands (43336).

GREENE, E. L., Catholic University of America, Washington, D. C.: 21 plants from Australia, collected by Baron Ferd. von Müller (43230: gift); 585 plants principally from the United States (43273: gift); 3,688 plants (43407: gift); herbarium consisting of more than 60,000 mounted sheets from various localities, a collection rich in types of new species and regarded as one of the most important private herbaria in existence. Doctor Greene's botanical library has also been deposited in the National Museum (43884: deposit); 88 plants from British Columbia, collected by J. Macoun (44183: gift). (See under S. B. Parish.)

GRIDLEY, Mrs. A. E., Washington, D. C.: Coat and cap of Capt. Charles V. Gridley, worn by him on board the U. S. Flagship *Olympia* just before the battle of Manila Bay, May 1, 1898 (43164).

GRIFFIN, Miss M. E., Smithsonian Institution: Sword, belt, and bridle used by Col. Emeric Szabad during the civil war (43759).

GRIFFITHS, DAVID, Department of Agriculture: 3 plants from Arizona (43246; 43280). (See under Department of Agriculture.)

GRIGGS, R. F., Victoria, Tex.: 6 plants from Texas (43068: exchange).

GRIGSBY, A. D., Campo, Cal.: Specimen of hyacinth from Lone Jack Mine, San Diego County, Cal. (43452).

GRINNELL, FORDYCE, Jr., Palo Alto, Cal.: 2 type specimens of butterflies (43918); 25 living larvæ of moth (*Illice nexa* Bd.) (43984).

GRINNELL, JOSEPH, Pasadena, Cal.: 2 kinglets (*Regulus calendula cineraceus*) (44234).

GROUT, A. J., Brooklyn, N. Y.: 25 mosses (43267); 30 North American mosses (44435). Purchase.

GRUBB, L. D., Wheeling, W. Va.: A beetle (*Coptocycla aurichalcea*) (44585).

GRUBBS, Dr. R. B., U. S. Army, Fort Wright, Wash. (received through Brig. Gen. T. E. Wilcox, U. S. Army, retired): Plant (*Stapelia*) from Washington (44260).

GUDGER, E. M. (See under Department of Commerce and Labor, Bureau of Fisheries.)

GUIMERAES, Señor ALVARO (received through H. W. Furniss, American consul, Bahia, Brazil): Fossil fish (43695).

GULICK, ADDISON, Cambridge, Mass.: 28 pulmonate mollusks from Bermuda (43330).

GUNN, D. A., Waco, Tex.: 3 cotton boll weevils and an acorn weevil (43598).

HACKEL, E. (See under Department of Agriculture.)

HAGUE, ARNOLD. (See under Interior Department, U. S. Geological Survey.)

HAHN, W. L., U. S. National Museum: Plant from Indiana (43485); small collection of mammals (43539: collected for the Museum.)

HAMILTON, A. (See under Wellington, New Zealand, Colonial Museum.)

HAMILTON, J. M., Cadereita, Queretaro, Mexico: Grasshopper (*Dactylopus variegatus* Thomas) (43738).

HAMLET, Capt. O. C. (See under Treasury Department.)

HAMMERSTEIN, H. L., Tsingtau, China: Marine mollusks from China (43663); echinoderms and mollusks (44083).

HANCOCK, Prof. J. L., Chicago, Ill.: Coccid insect from a pine tree (43224).

HANLEY, D. T. (See under Smithsonian Institution, Bureau of American Ethnology.)

HANSEN, C. H., Tropico, Cal. (received through Otto Heidemann): Isopod crustacean (*Livoneca vulgaris* Stimpson) from San Pedro Channel, taken from the gill of a fish (43258); 46 marine shells from California and 100 fossils from San Pedro, Cal. (43335).

HANSEN, H. J., Zoological Museum, Copenhagen, Denmark: 9 crustaceans (*Spæromidæ*) (44379: exchange). (See under Copenhagen, Denmark.)

HANSEN, JOHN, Washington, D. C.: 2 watch movements (43333).

HARDISON, J. A., Wadesboro, N. C.: Fragment of a sea-urchin of the genus *Oligoporus* from the subcarboniferous rocks (44323).

HARMES, S. F. (See under Cambridge, England, University Museum of Zoology.)

HARPER, R. M., College Point, N. Y.: Plants from Georgia (42956: gift; 43356, 43926: purchase).

HARRIMAN, E. H. (received through C. Hart Merriam, Chief, Biological Survey, Department of Agriculture): Collection of fossil plants made by the Harriman Expedition in Alaska (42980).

HARRIS, Mrs. H. M. S., Winchester, N. H.: A viola (43289).

HARRIS, J. V., Key West, Fla.: 3 cocoons of spiders (*Argiope trifasciata* Forsk) (43429).

HARRIS, W. A., Hartline, Wash.: Solpugid or jointed spider (*Eremobates pallipes* Say) (43099).

HARRISON, Miss CARRIE, Department of Agriculture: Fern (*Cardiomanes reniforme*) from the Hawaiian Islands (43338).

HART, C. A., Urbana, Ill.: 2 dragon-flies (44250).

HARTMAN, CARL, Austin, Tex.: 14 Hymenoptera (43379).

HARTWELL, M. V. (See under Smithsonian Institution, Bureau of American Ethnology.)

HARVARD UNIVERSITY, Cryptogamic Herbarium, Cambridge, Mass. (received through W. G. Farlow): 88 fungi (43691: exchange).

HARVEY, FRED. (See under Smithsonian Institution, Bureau of American Ethnology.)

HASSE, H. E., Soldiers' Home, Cal.: 4 plants from California (43094); 4 cacti from Arizona and California (43177); specimen of *Opuntia* from California (43940); living plant from California (44002).

HASSELL, GEORGE, Cowiche, Wash. (received through Edward Tobin): Diatomaceous earth from Yakima County, Wash. (43730).

HASTINGS, G. T., Ithaca, N. Y.: 481 plants collected in Chile (43122: purchase).

HAWAIIAN EXPERIMENT STATION, Honolulu, H. I. (received through Department of Agriculture): 4 plants from Honolulu (43058).

HAWLEY, ASHVILLE D., Soldiers' Home, Washington, D. C.: Mollusk (*Pomaulax undosus* Wood) from San Pedro, Cal. (43368).

HAWLEY, E. H., U. S. National Museum: Unmounted photograph of "The Blackbird"—a song (43306).

HEDGCOCK, G. G. (See under P. L. Ricker.)

HEIDEMANN, OTTO, Department of Agriculture: 7 mollusks from Aurora, W. V. (43117). (See under C. H. Hansen.)

HEIGHWAY, A. E. (received through G. P. Merrill): 2 eggs and a bird's nest from Cuba (42996).

HELLER, A. A., Los Gatos, Cal.: 5 plants from California (42957: gift); 290 plants from California (43232: purchase); 3 plants (43332: gift); 139 plants from California and Porto Rico (43602: purchase); 5 specimens of a Stone-crop, *Dudleya*, from Lower California (44366: exchange); 5 living plants from California (44477: gift).

HEMPEL, ADOLF, São Paulo, Brazil: 78 small mammals from Brazil (44545: purchase).

HENDLEY, H. W., U. S. National Museum: Specimen of covellite from Albany Development Company's mines, Albany County, Wyo. (44464).

HENRY, N. G., Interior Department, U. S. Geological Survey: 2 skulls found in Indian graves at "Sandy Hill," near Cambridge, Md. (44463).

HENSEN, JOHN, Washington, D. C.: 6 watches (10171: loan).

HENSHAW, H. W., Bureau of American Ethnology, Washington, D. C.: Spoon made from a Patella shell found in Kau, Hawaii (43921); sling-stone from Honomou, Hawaiian Islands (43941); 2 Hawaiian birdskins (*Loxioides baillerii*) (44373). (See under Department of Agriculture, and E. E. Lyman.)

HERING, C. J., Paramaribo, Surinam, Dutch Guiana: Rattle from a snake (43146).

HERSHEY, O. H. (received through G. H. Girty), University of California, Berkeley, Cal.: Ordovician fossils (44315).

HESTER, L. G., Houston, Tex.: 5 copper coins (44427).

HICKMAN, C. W., Augusta, Ga. (received through Mr. Nathan Spering, Philadelphia, Pa.): Pair of pistols captured during the War of the Revolution from Gen. William Cunningham ("Bloody Bill") of the British Army, near Mount Willing, S. C., by Gen. William Butler (9965): loan.

HILDERSHEIM, HANOVER, Germany (Die Direction des Roemer-Museum): Cast of ammonite (*Pachydiscus seppenradensis*) (43945: purchase).

HILLEBRAND, W. F. (See under W. A. Roebling.)

HINKLEY, A. A., Dubois, Ill.: 300 land and freshwater shells from various localities in the United States (43253: exchange).

HIRASE, Y., Kyoto, Japan: 76 ancient stone implements from Japan (43611: exchange).

HOCHDERFFER, George, Flagstaff, Ariz.: 20 plants, principally cacti, from Arizona (44184; 44215; 44242; 44310).

HODGES, Commander H. M., U. S. Navy. (See under Navy Department.)

HOLZINGER, J. M., Winona, Minn.: 125 mosses (43651); 26 mosses from North America (44151: purchase).

HOOVER, W. D. (See under Browne, estate of Alice Key.)

HOPKINS, F. H., Meeker, Colo.: Cretaceous fossils (43980).

HORGAN, E. J., U. S. National Museum: Bat, *Lasiurus cinereus* (42987: collected for the Museum); colored fetus (43543: gift).

HORN, F. C. (See under Interior Department, U. S. Geological Survey.)

HORNUNG, J., Menlo Park, Cal.: About 700 insects (43796); 2 nests of Tit (*Psaltriparus minimus californicus*) (44406); insects, spiders, reptiles, and batrachians (44443); 5 birds' skulls from Menlo Park (44456); nest of a White-footed mouse, *Peromyscus gambeli* (44605).

HOTELLING, E. R. & Co., Albuquerque, N. Mex.: Specimen of carbonate of zinc (43810); specimen of gypsum (43956).

HOUGH, WALTER, U. S. National Museum: Ancient pueblo material, snail shells, caddis cases, geological material, plants and human bones from Arizona and New Mexico (42982: collected for the Museum); plant from the District of Columbia (43004: collected for the Museum); Navaho blanket from Holbrook, Ariz., 31 pieces of ancient pottery from Holbrook, and a copy of a Christian fish-lamp from Italy (43186: purchase); ethnological specimens bought from the Klayoquot Indians of British Columbia at the Louisiana Purchase Exposition (43653: purchase); fragments of bone, pottery, shell, and stone from Cahokia mound, East St. Louis, Ill. (43654: gift); corals, sponges, etc., also nullipores, from the Philippine Islands, collected from *Tridacna* shells at the Philippine village, Louisiana Purchase Exposition (43959: gift); 2 specimens of crassulaceous plants from Arizona (44590: collected for the Museum). (See under B. W. Clare, and Van Briggle Pottery Co.).

HOUSE, H. D., Washington, D. C.: 29 plants from New Jersey (42962: gift); 54 plants from Maryland, Virginia, and vicinity (43247: exchange); 140 plants from the District of Columbia and vicinity (43274: exchange); 25 plants from Maryland (43296: exchange); 3 cotypes of a species of morning-glory, *Convolvulus*, from Colorado (43342: exchange); 12 plants from New Jersey (43360: exchange); 47 plants from various localities in the United States (43446: exchange); 4 plants from New York (43577: exchange); 54 plants collected in New York and New Jersey (44035); 2 specimens of *Isotria verticillata* (Willd.) Raf., collected in the District of Columbia (44313); 120 violets, collected in New Jersey and the District of Columbia (44368).

HOUSE, Mrs. H. D., Oneida, N. Y.: 13 specimens of violets from New Jersey and New York (43081: exchange).

HOWARD, O. W., Los Angeles, Cal.: 14 plants (43229).

HOWE, MARSHALL A., Botanical Gardens, Bronx Park, N. Y.: Isopod crustaceans from the Bahama Islands (44246).

HOWELL, A. H., Department of Agriculture, Washington, D. C.: 15 fresh-water shells from Texas (43193).

HOXIE, WALTER J., Savannah, Ga.: Photograph of nest and eggs of Swainson's warbler, *Helinaia swainsonii* (44459).

HOYT, J. C., La Fayette, N. Y. (received through G. W. Stose): Weathered fragment of limestone (43745: loan).

HOYT, Mrs. R. W., Fort Niobrara, Nebr.: 25 plants from Nebraska (43445).

HRDLIČKA, ALEŠ, U. S. National Museum: Brain of a male Bontoc Igorot (43041: collected for the Museum); cerebellum of a Suyac Igorot (43042: collected for the

Museum); brain of a male adult negro (43057: collected for the Museum); brain of a Moro, and brain of a Tagalog (43287: collected for the Museum from the Philippine department at the Louisiana Purchase Exposition); received through Edward Leaming, negative and enlarged mounted photograph of human bones with special anthropological features (43510: gift); specimen of Weaver bird, *Amadina fasciata* (?) (43747: gift); skeleton and brain of a negro child (43780: collected for the Museum); 100 brains of animals, birds, etc. (43838: collected for the Museum); cactus from Arizona (43873: collected for the Museum); 3 cacti from Arizona (43876: collected for the Museum); 6 plants from Arizona (43888: collected for the Museum); specimen of Apache Indian basket work (43895: gift); skeleton and brain of a negro child (43942: collected for the Museum); 12 plants from Arizona (44037: collected for the Museum); 9 plants from Arizona (44062: collected for the Museum); white fetus and skeleton of a male (44124: collected for the Museum); baskets, cradles, skull, and humerus from Arizona (44125: collected for the Museum); 23 plants, principally cacti, from Arizona (44129: collected for the Museum); portion of an olivine bomb from Talklai, Gila County, Ariz. (44135: gift); nest of Verdin, *Auriparus flaviceps* (44206: gift); medicine and food plants used by the Apache and Pima Indians (44288: collected for the Museum); brain and skeleton of a white male infant (44301: collected for the Museum); archeological and ethnological objects, skeletons, plants, etc., from Arizona (44383: collected for the Museum); 12 plants from Arizona (44398: collected for the Museum). (See under Miss Margaret Nessl, James L. Perkins and Miss Minnie Schiffbauer.)

HUBBARD, H. D., Washington, D. C.: Steel metric rule, with case, also chart of International metric system (43817); chart of "Chinese Radicals" (the primitive symbols in the written language (43883).

HUGER, A. M., Hendersonville, N. C.: Indian club or battleax, arrow points, and chips, and a rattle of a snake (43103).

HUNNER, JOHN, Spokane, Wash.: Diatomaceous earth from Washington (43845).

HUNT, CHARLES WARREN. (See under American Society of Civil Engineers.)

HUNTER, BYRON. (See under Department of Agriculture.)

HURTER, JULIUS, sr., St. Louis, Mo.: Reptiles and batrachians (44350).

HYNING, F. VAN, Des Moines, Iowa: 24 mollusks (*Succinea*) from the vicinity of Des Moines (44136).

IHERING, H. VON, Director, Museu Paulista, São Paulo, Brazil: Specimen of nephrite (43922). (See under São Paulo, Museu Paulista.)

IMHORST, Ferdinand, Los Angeles, Cal.: 8 plants, 3 specimens of minerals, and an operculum of a large trochoid shell (*Pomaulax undosum*) (44307).

IMPERIAL JAPANESE COMMISSION AT THE LOUISIANA PURCHASE EXPOSITION. (See under Japan, College of Science; Fukushima-Ken, School of Aidzu; Kioto Higher Girls' School; Life-Saving Society of Japan; Tokyo Higher Normal School; Red Cross Society and Welcome Society of Japan.)

INDIAN MUSEUM. (See under Calcutta, India.)

INGERSOLL, O. R., Washington, D. C.: Skull of a Flathead Indian (10303: loan).

INSTITUTO MEDICO NACIONAL, Mexico, Mexico: Plant from Mexico (43456).

INTERIOR, Department of the:

U. S. Geological Survey, Hon. Charles D. Walcott, Director: Fossil bones from Georgia and South Carolina, received through W. H. Dall (42985); received through David T. Day, specimen of tin ore from Gaffney, South Carolina (43159); rocks from the Silverton quadrangle, Colorado, collected by Whitman Cross and assistants (43237); rocks and thin sections from Idaho, collected by George H. Eldridge (43345); fossil wood, fossil plants, invertebrate and vertebrate fossils (43433); contorted jasper from Minnesota (43593); various minerals from California and South Dakota (43594); Ordovician fossils from Virginia (43606); rocks from the Black Hills of South Dakota, collected by J. D. Irving (43803); tooth of *Ptychodus* from near Vermilion, S. Dak., obtained

by N. H. Darton (43861); fossils from Silurian rocks in the western part of Tennessee, collected by E. O. Ulrich (43944); fossil bones from Bighorn Basin, Wyoming, collected by C. A. Fisher (43982); fossil bones from near Elephant Butte, New Mexico, collected by Willis T. Lee (43983); Carboniferous and Devonian fossils from Colorado and different areas, collected by G. H. Girty (43996); siliceous replacement of mud cracks from Gravetown, Ga. (44018); molybdenite from Cooper, Maine, collected by George O. Smith (44056); Tertiary fishes and a Cretaceous reptilian vertebra from the southeastern section of South Dakota, collected by J. E. Todd (44074); sample of white marble sent to Survey by Pennsylvania Marble and Granite Co., West Grove, Pa. (44095); graphite from Bartow County, Ga. (44096); 275 thin sections of igneous rocks from the Highwood Mountains and Little Belt Mountains, Montana, collected by L. V. Pirsson and W. H. Weed (44171); weathered sandstone simulating fossil bones, collected by F. G. Plummer near Lapanza, San Luis Obispo County, Cal. (44170); vertebrate fossil remains from Colorado and Nebraska (44233); rocks from Mount Taylor, New Mexico, collected by Clarence Dutton and received through Whitman Cross (44235); duplicate petrographic material from various localities (44255); specimens from Coon Butte, Arizona, from the High Sierra, California, and from Siberia, Alaska, and Oregon, collected by G. K. Gilbert (44283); rocks from Mount Stuart quadrangle, Washington (44295); 3 grinding stones from Umatilla, Oreg., and a fragment of metate from the western part of Utah, collected by G. K. Gilbert (44297); portions of jaw and several teeth of fossil camel, collected by F. C. Horn from near Minidoka, Idaho (44304); 5,000 Niagaran fossils, collected by R. S. Bassler, near Newsom, Tenn., under the direction of E. O. Ulrich (44305); fossil bones from the eastern section of Washington, collected by Mr. F. G. Plummer (44363); vertebrate remains from the Triassic (Dolores) formation of Rico and Engineer Mountain quadrangles, Colorado, collected by parties under the direction of Whitman Cross (44394); 6 igneous rocks from Yellowstone National Park, collected by Arnold Hague and assistants (44429); 18 dyke rocks from the Pawlet and Castleton quadrangles, Vermont, collected by T. Nelson Dale (44430); 167 boxes of duplicate invertebrate fossils, numbering about 100,000 (44458); 28 fossil plants from the coal measures in the vicinity of Beckley, W. Va., collected by Mr. W. P. Ball (25 specimens), and the remaining 3 by Mrs. Maude M. Ball (44596). (See under Pennsylvania Marble and Granite Company.)

Office of Indian Affairs: Skeleton of an Indian, an ancient basket shield, and other objects from the ruins of Cañon del Muerto, Arizona, collected by Charles L. Day (43740).

International Onyx Company, Denver, Colo.: 5 slabs of onyx marble from Arizona and Wyoming (44187: from the Louisiana Purchase Exposition).

Iowa, Historical Department of, Des Moines, Iowa (received through Charles Aldrich, curator): Large stone axe (10094: loan). Returned.

Irving, J. D. (See under Interior Department, U. S. Geological Survey.)

Isely, F. B., Wichita, Kans., Indianapolis, Ind.: 94 specimens of Orthoptera (43218; 43552).

Jackson, A. V. W., division of Oriental languages, Columbia University, New York City: Sprigs of Haoma plant used in the sacred rites of the Parsees (43549).

James, G. W., Syracuse, N. Y.: 2 sets of full-sized basketry designs (43254).

Japan (received from the Imperial Japanese Commission at the Louisiana Purchase Exposition): From the College of Science, Imperial University, Tokyo, 4 cases containing prehistoric relics and archeological map of Japan (44412: exchange). From Fukushima-Ken, School of Aidzu, a collection of Japanese lacquers (44413: exchange). From Kioto Higher Girls' School, Kioto, a collection of model Japanese costumes, etc. (44411: exchange). From the Life-Saving Society of Japan, 3 framed charts (44423: gift). From the Red Cross Society, Tokyo, collection of Red Cross material (44415: gift). From the Higher Normal School, Tokyo, a collection of modern Japanese tools (44414:

exchange). From the Welcome Society of Japan, Tokyo, enlarged colored photograph in an embroidered frame of the famous gate of Nikko (44410: gift).

JEFFERIS, Mrs. SALTILLO, Coahuila, Mexico: 2 specimens of *Echeveria* from Mexico (43887).

JENKINS, HUBERT O., Stanford University, Cal.: 8 birds' skins from California (44341).

JENKINS, L. W., Peabody Academy of Science, Salem, Mass.: Stage whip (43490).

JENNEY, CHARLES E., Fresno, Cal: Two insects, *Capaneus spurcus* Stal., and *Hydrophilus triangularis* Say (43502); insects of different species (43662): galls on leaves of *Lupinus albifrons*, produced by small flies of the family Cecidomyiidæ (43948); 6 species of insects (44223).

JERMY, JULIUS, San Antonio, Tex.: 126 plants from Texas (43495; 43962; 44001: received through Department of Agriculture); 64 Lepidoptera (44070).

JOHNSON, E. A., Modesto, Cal.: A homopterous insect, *Closteroptera erythrocephala* Germar. (43087).

JOHNSON, JULIUS, Marysville, Kans.: Minerals, fossil bones, and arrowheads (44471).

JOHNSON, J. (See under Navy Department.)

JONHSON, J. B., Manassas, Va.: Lizard, *Eumeces quinquelineatus*, from Virginia (42939).

JOHNSON, O. B., Seattle, Wash.: 21 Lepidoptera (43450).

JOHNSON, R. S. (See under Department of Commerce and Labor, Bureau of Fisheries.)

JOHNSTON, ELIZABETH BRYANT, Washington, D. C.: Painting of Gen. George Washington (9610: loan).

JONES, Mrs. LORIN T., Billings, Mont.: Wedgwood vase (10371: loan).

JONES, McDUFFEE & STRATTON COMPANY, Boston, Mass.: 6 historical plates showing the homes of Presidents Jefferson and Jackson, a statue of Capt. John Parker, Lexington, Mass., and portraits of Presidents Lincoln, Grant, and Roosevelt (44327).

JONES, MARCUS E., Salt Lake City, Utah: 6 plants from Utah (43167; 44484).

JONES, M. E., Chevy Chase Lake, Md.: Framed engraving of General Jackson (9640: loan).

JONES, Miss RACHEL, Dorsey, Md.: Katydid, *Amblycorypha oblongifolia* De Geer (43136).

JORDAN, B. T., Victoria, Tex.: Living cactus from Texas (44397).

JORDAN, D. S. (See under Commerce and Labor, Department of, and Leland Stanford Junior University).

JUDGE, JAMES, assistant agent, division of Alaska fisheries, Department of Commerce and Labor, St. George Island, Alaska: Skin of Flicker, *Colaptes auratus*, from Alaska (43742); 2 skeletons of Baird's beaked whale, *Berardius bairdii*, from St. George Island (43671).

KARPELES, S. R., Washington, D. C.: Skeleton and brain of white fetus (43852).

KEARFOTT, W. D., New York City: 12 type specimens of moths (43592).

KEEN, Rev. J. H., Metlakatlah, British Columbia (received through James Fletcher): Fishes, leeches, and newts (43187).

KELLER, F. L., Davao, Mindanao, Philippine Islands: Tree duck, *Dendrocygna arcuata*, and a monkey-eating eagle, *Pithecophaga jefferyi* probably the fifth known specimen (43779).

KELLERMAN, W. A., Columbus, Ohio: 12 cacti from Guatemala (44181).

KELLOGG, V. L. (See under Commerce and Labor, Department of, and Leland Stanford Junior University.)

KELSEY, F. W., San Diego Commercial College, San Diego, Cal.: Specimens of 2 species of *Psephidea* (43869); photograph of a turtle (44160).

KEMPTER, Mrs. M. M., Bloomfield, N. J. (received through Mrs. Lucy Ord Donaldson): Workbox owned by Mrs. Ord, wife of Gen. E. O. C. Ord, U. S. Army, and deposited by her granddaughter (10201: loan).

KENDALL, W. C. (See under Department of Commerce and Labor, Bureau of Fisheries, and Mrs. D. L. Cummings.)

KENNEDY, GEORGE G., Readville, Mass.: Specimen of *Brachyodus trichodes* from New Hampshire (43487).

KERN, D. N., Allentown, Pa.: Roughly worked flints, hammerstones, arrowpoints, etc., from village sites in Lehigh County, Pennsylvania (44016).

KEW, LONDON, ENGLAND, ROYAL BOTANICAL GARDENS: 4 plants from England (43499; 43525: exchange.)

KEYSER, E. W., Washington, D. C.: 2 terra-cotta figurines found in graves at Tanagra, Bœotia, Greece (44039: exchange.)

KIDDER, Miss J., Berkeley, Cal.: Sphinx-moth, *Arctonotus lucidus* (43931).

KILPATRICK COLLECTION, GENERAL JUDSON: Full-dress West Point cadet's coat, with sergeant's chevrons on sleeves (from Mrs. Julia Kilpatrick Rafferty); regulation (old) major-general's coat, with shoulder straps (from Mrs. Judson (Louisa V.) Kilpatrick); major-general's uniform dress coat, embroidered collar and cuffs (from Mrs. Kilpatrick); gold badge "40 rounds" (pinned to major-general's dress coat) (from Mrs. Kilpatrick); Custer Cavalry badge (from Mrs. Kilpatrick); gold guidon badge (from Mrs. Kilpatrick); G. A. R. badge (from Mrs. Kilpatrick); major-general's epaulets (bullion) (from Mrs. Kilpatrick); buff silk sash with tassels (from Mrs. Harry H. (Laura Kilpatrick) Morgan; gold thread aiguillettes (from Mrs. Laura Kilpatrick Morgan); major-general's regulation sword belt, black velvet embroidered in bullion, no buckle (from Mrs. Julia Kilpatrick Rafferty); regulation sword belt, brown leather braided with gold bullion (from Mrs. Julia Kilpatrick Rafferty); baldrick of gold lace and leather, with pistol cartridge box, gilt plate, chains, and lion's head (from Mrs. Laura Kilpatrick Morgan); major-general's chapeau (from Mrs. Kilpatrick); major-general's regulation white helmet, with chin strap (from Mrs. Kilpatrick); black plume for helmet (from Mrs. Julia Kilpatrick Rafferty); iron spurs (from Mrs. Laura Kilpatrick Morgan); photograph of the death chamber of Maj. Gen. Judson Kilpatrick (from Mrs. Kilpatrick); silver cord and tassels from the coffin of Major-General Kilpatrick (from Mrs. Kilpatrick); tortoise-shell comb belonging to the wife of General Kilpatrick (from Mrs. Kilpatrick); lavender satin boots belonging to the wife of General Kilpatrick (from Mrs. Kilpatrick); tortoise-shell cardcase (with calendar and broken pencil) (from Mrs. Kilpatrick); tortoise-shell purse (cardcase and purse in one box) (from Mrs. Kilpatrick); piece of ½-inch gold lace (from Mrs. Kilpatrick); riding saddle (from Mrs. Marie Alice Tyler); service sword; gilt buttons from coat of General Kilpatrick (from Mrs. Laura Kilpatrick Morgan) (9673: loan.) Jeweled sword which belonged to the late Gen. Judson Kilpatrick (received through Mrs. Kilpatrick and Mr. Theodore F. Margarum) (9928: loan.) (See also under Mrs. Judson (Louisa V.) Kilpatrick; Mr. Theodore F. Margarum; Mrs. Harry H. (Laura Kilpatrick) Morgan; Mrs. Julia Kilpatrick Rafferty, and Mrs. Marie Alice Tyler).

KILPATRICK, Mrs. JUDSON (LOUISA V.). (See under Kilpatrick Collection.)

KIMBALL, D. S., Avon Park, Fla.: Pileated woodpecker, *Ceophlœus pileatus*, from Florida (43687).

KINCAID, TREVOR, University of Washington, Seattle, Wash.: 3 mollusks from Puget Sound (44132); 32 shells from Puget Sound (44539).

KIRKALDY, G. W., Honolulu, Hawaii: Isopod crustaceans (43736).

KISLINGBURY, J. P., Rochester, N. Y.: Arctic relics collected by the late Lieut. F. F. Kislingbury while connected with the Greely Expedition (44046).

K. K. NATURHISTORISCHES HOFMUSEUM. (See under Vienna, Austria.)

KLAGES, E. A., Crafton, Pa.: Type specimen of a species of Syntomidæ (44224).

KLINE, J. M., Linden, Va.: Specimen of *Corydalis cornutus* L. (44450).

KLOSS, C. B., Johore Museum, Johore, Malay Peninsula: Skin and skull of a rat (43129); received through W. L. Abbott, skeleton of tiger and skins and skulls of 2 pigs (44020).

KNIGHT, JAMES M. (See under Leadville Publishing and Printing Company.)

KRAMER, W. V., Chambersburg, Pa.: Hindu temple medal, an interesting specimen of the medal sold to pilgrims at the shrine of Vishnu in India (44232).

KUNZ, G. F., New York City: Crystals of thorianite from Ceylon (43729). (See under E. L. Beede.)

KUNZE, R. E., Phoenix, Ariz.: 53 plants, principally Cactaceæ, from Texas and Arizona (43166; 43182; 43198; 43208; 43213; 43282; 43355; 43464; 43587; 43591; 43605; 43950; 44243; 44309; 44478).

KWIATT, A., Chicago, Ill.: 15 moths (44137).

La Plata, Museo de la Plata, Argentina, South America (received through Francisco P. Moreno, director): Plaster casts of 36 South American prehistoric objects (43840: exchange).

Lacey, Howard, Kerrville, Tex.: 2 deer, 2 coyotes, and 1 wolf (44069).

Lamb, D. S., Army Medical Museum, War Department, Washington, D. C.: White and colored fetuses, brain of a full-grown negro, skeleton and brain of a white man, and 3 heads of full-blood negroes (43353; 43392; 43399; 43466; 43850; 44221).

Lamson-Scribner, F. (See under Department of Agriculture.)

Langlois, A. B. (See under Department of Agriculture.)

Lansburgh, Max. (See under Charles Mades.)

Lansdale, J. W., Washington, D. C.: Concretion (44236).

Lantz, D. E., Biological Survey, Department of Agriculture, Washington, D. C.: 80 topotypes and two other examples of beetles, *Cicindela nigrocærula* (44316).

Lawrence, W. A., New York City: Illustrated catalogue of arms and armor; Deringer flintlock horse pistol (10002; 10505: loan); 2 powderhorns (44494: gift).

Leach, F., New York City: 11 watch movements (9785: loan).

Leadville Publishing and Printing Company, Leadville, Colo. (received through James M. Knight, manager): Portion of the maxillary containing three of the large cheek teeth of a horse, probably a draft horse (44597).

Leaming, Edward. (See under Dr. A. Hrdlička.)

Lee, A. P., Washington, D. C.: Specimen of Kentucky sandstone (43613).

Lee, Rev. D. C., Harbor Springs, Mich.: 5 specimens of Chippewa quill work (44348: purchase).

Lee, Sheridan. (See under George O'Donoghue.)

Lee, Willis. (See under Interior Department, U. S. Geological Survey.)

Leiberg, J. H. (See under Department of Agriculture.)

Leipzig, Germany, University of Leipzig (received through J. Felix): About 350 fossil corals (43069: exchange).

Leland Stanford Junior University, Stanford University, Cal. (received through C. H. Gilbert): Samoan fishes collected by David Starr Jordan and L. V. Kellogg in 1902 (43870); cotypes of fishes (*Cottus kazika* and *Julis musume*), and a specimen of *Ateleopus japonicus* (43914); type specimens of fishes (*Stelgidonotus latifrons* and *Malacocottus kinkaidi*) (44238).

Lemmon, J. G., Oakland, Cal.: Plant from Arizona (43860).

Leon, Jesus Diaz de, Costado del Ex. Arzobispado Museo, Tacubaya, Mexico: 21 species of Mexican mollusks (43290).

Lermond, N. W., Thomaston, Me.: 11 mollusks from the United States (43390).

Lesher, A. U., Berwick, Pa.: Cast of mastodon tooth (43515).

Levinsen, G. M. R., Zoological Museum, University of Copenhagen, Copenhagen, Denmark: About 400 specimens of Danish Cretaceous bryozoans and miscellaneous specimens of bryozoan and ostracod washings (42968); Danish Cretaceous fossils (43781). Exchange.

Lewton, F. L., Victoria, Tex., and Washington, D. C.: 118 plants, including cacti, from Texas (43212; 43383; 44213; 44259).

Leys, Dr. James F., surgeon, U. S. Navy, Philadelphia, Pa.: Stone implements and geological specimens from Guam (44175).

Lindahl, Josua, Cincinnati, Ohio: 6 land shells, probably oriental (43252).

Link, Henry A., Waterloo, Ind.: Fossils (43588: gift); specimens of Devonian fossils (43702: exchange); 26 arrow points (43882: exchange); stone arrow points and geological specimens (44254: gift).

Little, G. W., Glens Falls, N. Y.: Crowned pigeon, *Goura coronata*, native of New Guinea and the neighboring islands (42976).

Litwinon, D. J. (See under Department of Agriculture.)

Lloyd Brothers, Cincinnati, Ohio (received through Department of Agriculture): 3 mosses from Michigan (43199).

Locke, Otto, New Braunfels, N. Mex.: 5 cacti from Texas (43374); 3 plants from Texas (43441).

Lockhart, H., jr., Sonora, Mexico: Mantispa-fly, *Symphorasis signata* Hagen (44442).

London, England; British Museum (Natural History) (received through G. A. Boulenger): Specimens of fishes (*Trichonotus setigeus* and *Hemerocœtes acanthorhynchus*) and a small collection of African fishes (44195); mammal skins and skulls (44438). Exchange.

Long, M. C., Kansas City, Mo.: 15 archeological objects (9609: loan). Returned.

Longden, W. M. (See under Department of Agriculture.)

Loomis, Rev. Henry, Yokohama, Japan: *Coleoptera*, *Lepidoptera*, and *Hemiptera* from Formosa (43998).

Lorain Steel Company, Lorain, Ohio: 5 6-inch sections of typical rails collected at the Railway Appliance Exhibition in Washington, D. C., May 13, 1905 (44303).

Loughborough, Mrs. J. H., Bethesda, Md.: 2 leaf-shaped blades, part of cache found near Somerset, Montgomery County, Md. (43139).

Lovett, Edward, Croydon, England: Colored woodcut of a "panorama view" of the Lord Mayor's show (43641).

Lowe, H. N., Long Beach, Cal.: 7 brachiopods from California (43793).

Lowry, Lewis. (See under William Stewart Taylor.)

Lugenbeel, H. G., Berwyn, Md.: Snake (*Ophibolus rhombomaculatus*) from near Berwyn (43378).

Lumholtz, Carl, New York City: Ancient Mexican statue from Patzcuaro, Mexico (43885: purchase; L. P. X.).

Lyman, E. E., Waialua, Oahu, Hawaiian Islands (received through H. W. Henshaw): 4 specimens of *Amastra* (*Kauaia*) *rex*, from Konaluianni, Oahu (43670).

Lyon, M. W., jr., U. S. National Museum: 74 plants from Missouri (43978: collected for the Museum); fragments of pottery from Monks Mound, East St. Louis, Ill. (43204: gift). (See under A. J. Brown; and Perkinson Construction Company.)

Lyon, Victor. W., Jeffersonville, Ind.: Specimens of Middle Devonian washings with bryozoans and ostracods (43018: exchange).

MacDougal, D. T. (See under New York Botanical Garden.)

MacFarland, M. F., Stanford University, Cal.: Nudibranch mollusks from Monterey Bay (43825: deposit).

McAtee, W. L., Department of Agriculture, Washington, D. C.: Lizard and eggs of a tree frog collected by C. A. Barber in the West Indies (44487).

McCarty, J. E., Dublin, Tex.: Rocks from Texas (43788); specimen of garnet (44613).

McCormick, J. H., Washington, D. C.: Pottery fragments from a mound near Mobile, Ala. (42941).

McCormick, W. F. J., Cocoanut Grove, Fla.: (Arachnid, *Ammotrecha cubæ* Lucas) (43133).

McElhose, Henry, St. Louis, Mo.: 60 moths (43545).

McGuire, J. D. (See under Rev. W. R. Savage, and Smithsonian Institution, Bureau of American Ethnology.)

McLanahan, Mrs. S. C., Hollidaysburg, Pa.: Beetle (42979).

McLean, John J., Washington, D. C.: Ethnological material from Alaska and the Pacific slope (10413: loan).

McMickle, C., Oswego, Kans.: Stone-grooved sinker (43217).

McMurtrie, Daniel, medical director, U. S. Navy, and Mrs. McMurtrie, Washington, D. C.: Japanese temple chair (44028).

Macoun, John, Ottawa, Canada: Plants from British Columbia (44077). (See under Department of Agriculture, and E. L. Greene.)

Maddren, A. G. (See under Smithsonian Institution.)

Mades, Charles, Washington, D. C. (received through Max Lansburgh): Pair of spectacles which belonged to Gen. John A. Sutter (43928).

Madrid, Spain: Museo di Ciencias Naturales (received through Ricardo Garcia Mercet): 499 exotic Hymenoptera (43498: exchange).

Mall, Frank P., Anatomical Laboratory of Johns Hopkins University, Baltimore, Md.: Brains of 4 fetuses (43484); about 40 fetuses (44523).

Malone, J. G., Portland, Oreg.: 8 shells, probably representing species of *Margaritana* (43669).

Manila, P. I., Bureau of Forestry (received through U. S. Department of Agriculture): 100 plants from the Philippine Islands (43741: exchange).

GOVERNMENT LABORATORIES: 991 sheets of plants collected in the Philippine Islands by E. D. Merrill (42964: exchange); received through Hon. Dean C. Worcester, secretary of the interior, 155 birds' skins from the Philippine Islands, including a number of species new to the Museum colletion (44319: exchange).

MAPLESTONE, C. M., Eltham, Victoria, Australia: 84 species of Australian Tertiary bryozoans and specimens of washings for micro-organisms (43681: exchange).

MARGARUM, T. F. (See under "Kilpatrick Collection.")

MARLATT, C. L., Bureau of Entomology, Department of Agriculture, Washington, D. C.: Snake (*Heterodon platyrhinos*), from Cleveland Park, D. C. (44486).

MARSHALL, GEORGE, U. S. National Museum: Muskrat (44582). (See under E. S. Schmid.)

MARSHALL, ROBERT, Washington, D. C.: 4 fossil bones taken from the tunnel of the Pennsylvania Railroad, under Capitol Hill (43541: exchange).

MARTIN, H. T., University of Kansas, Lawrence, Kans.: Tertiary Patagonian shells (43366).

MARTIN, J. P., Washington, D. C.: magnesite from Greenville, Canada (43402).

MARTIN, WILLIAM, New York City: 27 flint arrow points from near Atlanta, Ga., and Tascosa, Tex. (44229).

MARTIN, W. E., Springhill, Tenn.: 3 Wheelbugs, *Prionidus cristatus* Linn. (43172).

MARVIN, Mrs. M. F., Manila, P. I.: Beetle (*Odontolabis alces* Fabr.) (43158).

MASON, O. T., U. S. National Museum: 10 photographs illustrating electrical tattooing (43039). (See under Mrs. Margaret Bates.)

MATIEGKA, Dr. H., Prague University, Prague, Austria: 10 brains and 17 skulls of typical Slavs (43985: exchange).

MATSCHIE, Dr. PAUL, Royal Zoological Museum, Berlin, Germany: Skin and skull of rare insectivore (*Potamogale velox*) (43985: purchase).

MAXON, W. R., U. S. National Museum: About 2,000 plants, also birds, insects, reptiles, birds' eggs and nests, and a small basket made in the parish of St. Elizabeth, Jamacia (42994); specimen of *Vitex agnus-castus* L., from Maryland (43080); 3 plants collected in New York and the District of Columbia (43343); Tree-frog, *Hyla pickeringi*, from Mount Vernon, Va. (43437); 2 specimens of *Selaginella apus* from New York (43508: gift); 6 ferns from the vicinity of Washington, D. C. (43636); 19 plants from Guatemala (44079); 28 cacti from Guatemala (44179); 2 cacti from Texas (44258). (All of the above were collected for the Museum.) "Guipil," a garment worn by Kekchi girls in Guatemala (44396: gift); egg of Worm-eating warbler, *Helmitheros vermivorus* (44548: gift). (See under Department of Agriculture.)

MAYBERRY, H. H., Birmingham, Ala.: 2 bullets and a coat button from the battlefield at Franklin, Tenn. (43816).

MAYNARD, G. C., U. S. National Museum: Spreading-adder, *Heterodon platyrhinos*, from Rockville, Md. (43000).

MAYR, GUSTAV, Vienna, Austria: 46 ants (44186: exchange).

MEARNS, Dr. E. A., U. S. Army, Manila, P. I.: 116 birds' skins, botanical specimens, beetle, coral, and beads from Mindanao and Sulu Islands, Philippine group (42932); skins of civets (43102, 43245); skins of a snake and a frog from the Philippine Islands (43386); natural-history specimens from the Philippine Islands, including mammals, birds, birds' eggs, reptiles, crustaceans, mollusks, and other marine invertebrates, and plants, also ethnological and geological material (43557); specimen of bark of the Yucca from California (43603); fishes from Mogi, Japan (43612); rocks from near Mojave, Cal. (43614); fossil wood from near Winslow, Ariz. (43615); 8 marine mollusks from Nagasaki, Japan (44354); "Hansen medal," conferred on Doctor Mearns by the College of Physicians and Surgeons, of New York (44357); bait basket of a Japanese fisherman of Mogi, near Nagasaki, Japan (44376); scraps of Arabic manuscript (44460). (See under Maj. Gen. Leonard Wood.)

MEARNS, LOUIS DI Z., Circleville, Ohio: Birds and mammals from various localities in the United States (43835: deposit); 14 birds' skins (43847: deposit);

2 eggs of Mexican Screech-owl, *Megascops asio cineraceus* (44207: deposit); 2 eggs of vulture, *Cathartes aura* (44405: gift).

MEDSGER, O. P., Jacobs Creek, Pa., Arlington, N. J.: 6 specimens of *Cassia* from Pennsylvania (43153); plant from New Jersey (43361).

MERCET, RICARDO GARCIA. (See under Madrid, Spain.)

MERRIAM, Dr. C. HART. (See under Department of Agriculture, and E. H. Harriman.

MERRILL, E. D. (See under Manila, P. I., Government laboratories.)

MERRILL, Dr. G. P., U. S. National Museum: Specimens of serpentine, asbestos, and associated rocks and minerals from Thetford and Black Lake, Quebec, Canada (42943: collected for the Museum); specimen of silicon from the Carbide works at Niagara Falls, N. Y. (43284: collected for the Museum); 6 plants from Mexico (43294: collected for the Museum); 2 specimens of granite from quarries at Bethel, Vt. (43350: collected for the Museum); 4 specimens of granite from quarries at Milford, Mass. (43359: collected for the Museum); oolithic limestone from Miama, Fla. (43989: collected for the Museum); shell limestone from Ocala, Fla. (43990: collected for the Museum); specimens of Coquina from St. Augustine, Fla. (44169: collected for the Museum); shell limestone from quarries of Standard Lime Company, Kendrick, Fla. (44176: collected for the Museum); 16 specimens of granites, corundums, etc., from various localities in North Carolina (44566: gift); large specimen of weathered crystalline limestone (marble) from near Murphy, N. C. (44603: gift). (See under A. E. Heighway, and Thetford mines, Quebec, Canada.)

MERRILL, Mrs. GEORGE P.: 31 seaweeds from Maine (43293).

MERRITT, W. A., Miami, Fla.: 14 birds' skins, turtle, frog, and crab from Florida (44172, 44191); 2 miscellaneous collections of insects (44227).

METCALF, O. B., Black Range and Mesilla Park, N. Mex.: Plant from New Mexico (43095: gift); 655 plants from Mogollon Mountains region (43110: purchase).

MEUSEL, ROBERT, Ujpest, Hungary: 88 Hungarian beetles (43622: exchange).

MEXICO, MEXICO, NACIONAL MUSEUM (received through Don Francisco del Paso y Troncoso, director): Plaster casts of three Mexican stone yokes (43953: exchange).

MEYER, A. B. (See under Dresden, Germany, Royal Zoological and Anthropological-Ethnographical Museum.)

MEYNCKE, O. M., Belfield, Va.: 125 plants from Virginia (43046: exchange).

MEYRICK, EDWARD, Marlborough, Wilts, England (received through August Busck): 400 Australian *Tineina*, including several types and cotypes (44261).

MIDDLETON, F. B. (See under Victor Talking Machine Company.)

MIGUEL, Mons. J., Barroubio, near Aigues-Vives, Hèrault, France: Collection of prehistoric objects from France and Algiers (43727: exchange).

MILES, Miss KATHERINE, Brattleboro, Vt. (received through James M. Tyler): African kaross (44116).

MILLER, A. M., Lexington, Ky.: Ordovician fossils (44064).

MILLER, Lieut. EDWARD Y., U. S. Army, governor, Province of Paragua, Puerto Princessa, P. I.: Ethnological material from Battak and 2 shells from Paragua (43240); ethnological specimens from the Philippine Islands (43288).

MILLER, Gerrit S., Jr., U. S. National Museum: 7 living plants from France (43054: collected for the Museum); 14 plants from Europe (43168, 43275: collected for the Museum); topotype of *Sorex fumeus* Miller (44614: collected for the Museum).

MILLER, GERRIT S., Jr., and LEONHARD STEJNEGER, U. S. National Museum: Collection of plants, crustaceans, mammals, birds, reptiles, batrachians, insects, and mollusks from Europe (43260: collected for the Museum).

MILLER, Mrs. L. C., Salt Lake City, Utah: Fresh-water crustaceans (43203).

MILLER, Miss VIRGINIA. (See under National Society of the Colonial Dames of America.)

MILLNER, I. B., Morganton, N. C.: Pack of illuminated playing cards from Sydney, New South Wales (43724).

MINOR, THOMAS C., Cincinnati, Ohio: 4 specimens of *Coriscus* (*Nabis*) *ferus* Linn. (43134).

MISSOURI BOTANICAL GARDEN, St. Louis, Mo.: 2 plants (43564: exchange); cactus (44047: exchange); living plant from Mexico (44370: exchange).

MITCHELL, Miss E. G., U. S. National Museum: 6 crustaceans from the District of Columbia (44218).

MITCHELL, J. D., Victoria, Tex.: Salamander and leeches from Texas (43228).

MOECKEL, ERNST, Crookston, Minn.: 20-shot double-barreled revolver (44249).

MOFFETT, JAMES P., Portland, Oreg.: 20 arrowheads (43308).

MOLESWORTH, JAMES P., Woodbine, Md.: Great Blue heron, *Ardea herodias*, in immature plumage (43055).

MOONEY, JAMES. (See under Smithsonian Institution, Bureau of American Ethnology.)

MOORE, CLARENCE B., Philadelphia, Pa.: 2 skulls found in mounds on Tombigbee River, Washington County, Ala. (44071); fragments of a skull from Moundville, Ala. (44231).

MOORE, J. PERCY. (See under Pennsylvania, University of.)

MOORS, Mr. (See under Brig. Gen. T. E. Wilcox, U. S. Army, retired.)

MOREIRA, CARLOS. (See under Rio Janeiro, National Museum of Brazil.)

MORENO, FRANCISCO P. (See under La Plata, Argentina.)

MORGAN, E. L., Washington, D. C.: Fetus of a negro (43726); brain and skeleton of a white fetus (44027).

MORGAN, Mrs. HARRY H., (LAURA KILPATRICK). (See under Kilpatrick Collection.)

MORGAN, Mrs. LAURA KILPATRICK, Lucerne, Switzerland: Engraved plate from Gen. Judson Kilpatrick's coffin, picture of General Kilpatrick when a boy, and a painting made by him during his boyhood (10336: loan).

MORGAN, PERCY, Director, Waihi School of Mines, Waihi, Auckland, New Zealand: Rocks and minerals from New Zealand (44482: exchange).

MORSE, EDWARD L., Washington, D. C.: Press-copy of a telegram sent by S. F. B. Morse to the State Department (44349).

MORSE, E. S. (See under Peabody Museum, Salem, Mass.)

MORSE, E. V., Lorain, Ohio: Specimen of *Lepidodendron clypeatum* Lesquereux from near Massillon, Ohio (43141).

MORTON, J., Cosmopolis, Wash.: Water-bug, *Benacus griseus* Say (43259).

MORTON, WILLIAM J., New York City: Original set of tickets in the Harvard Medical School, and original degree of M. D. from the Washington University of Maryland, belonging to the late Dr. W. F. G. Morton (43052); plaster bust of W. T. G. Morton, of Boston, Mass., who in 1846 introduced the use of ether as a general anesthetic (43855).

MOSELEY, E. L., Sandusky, Ohio: 21 plants from Ohio (43760, 44012); reptiles and batrachians from Ohio (44490).

MOSS, WILLIAM, Ashton-under-Lyne, Lancaster, England: 98 shells from Lifu Island (43769).

MOWBRAY, LOUIS, St. George, Bermuda (received through M. Mowbray): Specimens of *Branchiostoma* (*Amphioxus*) *caribbæus* (44084).

MUDD, J. A., Hyattsville, Md.: Beetle, *Monohammus titillator* (44588).

MÜLLER, Baron FERD. VON. (See under E. L. Greene.)

MÜLLER, F. (See under New York Botanical Garden.)

MUNICIPAL SCHOOL OF SCIENCE AND ART, Carlisle, England. (See under H. W. Seton-Karr.)

MUNRO, NEIL GORDON, Yokohama, Japan: Collection of relics of the stone age (44334: exchange).

MUSEO DE CIENCIAS NATURALES. (See under Madrid, Spain.)

MUSEO DE LA PLATA. (See under La Plata, Argentina, South America.)

MUSEO NACIONAL DE MEXICO. (See under Mexico, Mexico.)

MUSEUM OF COMPARATIVE ZOOLOGY, Cambridge, Mass.: (Received through Thomas Barbour) 2 batrachians from Panama (43960); (received through Walter Faxon) 13 specimens of isopods (44565).

MUSEUM OF NATURAL HISTORY. (See under Paris, France.)

MUSEU PAULISTA. (See under São Paulo Brazil.)

NACK, CHARLES, Bahia, Brazil, South America: Fulgorid, a homopterous

insect, *Lauternaria* (*Fulgora*) *servillei* Spinola (43414); large Erebiid-moth (44586).

National Museum of Brazil. (See under Rio Janeiro.)

National Society of the Colonial Dames of America (received through Miss Virginia Miller, custodian): Candlestick which belonged to Jessie Hough Wickersham, of Lancaster, Pa., and a leaflet from a book sent with others to General Washington at Brandywine for use in making gun wads (10048: loan).

National Society of the Dames of 1846 (received through Mrs. Rose McHenry Brackett): Flag of Capt. Robert Fravel's company; gold watch; badge and a book containing constitution and by-laws (10242: loan).

National Society of the Daughters of the American Revolution: Revolutionary relics, including a seal presented by Mrs. Robert O. Bascom, of Fort Edwards, N. Y.; lamp; nails; photographs of ruins of Fort Ticonderoga; photographs of daughters of Revolutionary soldiers; photograph of a fireplace at Crown Point, presented by Mrs. William W. Moore, Hands Cove Chapter, Shoreham, Vt.; fragment of a dress, etc., brick from Ann Story's cabin, presented by Mrs. Columbus Smith, Windsor, Vt. (10546: loan).

Nattress, Rev. Thomas, Amherstburg, Ontario, Canada: Fossils from the bed of the Detroit River at Amherstburg(43387).

Navas, Rev. R. P. L., Zaragoza, Spain (received through R. P. Currie): 12 specimens of European Chrysopidæ and Hemerobiidæ (43772); 7 specimens of *Trichoptera* and 2 Ant-lions (44167) Exchange.

Navy Department (Hydrographic Office) (received through Commander Harry M. Hodges, U. S. Navy): Pieces of pumice collected by Capt. J. Johnson, of the schooner *Expansion* (44119).

Neal, L. A., Dallas, Tex.: Salamander, *Chondrotus microstomus*, from Texas (44407).

Needham, James G., Lake Forest College, Lake Forest, Ill.: Parasitic Hymenoptera (43999).

Nelson, E. W., San Diego, Cal.: 4 living plants from Lower California (44367). (See also under Department of Agriculture.)

Nelson, Elias, Laramie, Wyo.: 21 plants (*Antennaria*) from the United States (43238: purchase).

Nessl, Miss Margaret, Talklai, Ariz. (received through Aleš Hrdlička): Stone ring from ruins and an arrow point from mesa near Rice Station school (44441).

Nettleton, E. M., Welch, W. Va.: Fossil plants (43438).

Neuwirth, A., Washington, D. C.: Silk badge of the World's Columbian Exposition, 1893 (43936).

Newman, J. S. (See under Department of Agriculture.)

New York Aquarium, Battery Park, New York City: 2 specimens of Rudd, *Leuciscus erythropthalmus* (44408).

New York Botanical Garden, Bronx Park, New York City (received through N. L. Britton, director): 47 plants from the West Indies (42963); plant from Kew, England (43001); plant from the Isle of Pines, collected by A. H. Curtiss (43053); 237 plants from Colorado (43097); 104 plants from Colorado (43479); 2 plants from Lower California (43520, 43540); about 50 cacti from the New York Garden (43620); orchid, *Lælia albida* (43640); specimen of *Sedum wootoni* Britton (43988); 357 plants from the West Indies (44082); plant from Long Island (44214); 416 plants collected in Montana by D. T. MacDougal and V. K. Vreeland (44314); 3 living plants (44371); plant from Mexico, collected by F. Müller (44399). Exchange.

New York Zoological Park, New York City (received through R. L. Ditmars): 2 lizards (*Phrynosoma hernandesi* and *P. ornatissimum*) from Mexico and Colorado (43792).

New Zealand, Exhibit of the Government at the Louisiana Purchase Exposition (received through Commissioner-General T. E. Donne): Photographs of Maori people and scenery of the country, also 2 stuffed specimens of Rainbow trout, *Salmo irideus* (44454).

Nichols, Mrs. Ann, Laredo, Tex.: 26 cacti from Texas (43496: exchange).

NICHOLSON, Miss GRACE, Pasadena, Cal.: Basket made by the Pomo Indians and 2 unmounted photographs (43244).

NICKERSON, W. W., Klamath Agency, Oreg.: Partly finished basket of the Klamath Indians (43036).

NOGUCHI, HIDEYO, Copenhagen, Denmark: Specimen of anticrotalic serum, prepared by the donor (42989).

NORTON, J. B. S., College Park, Md. (received through Department of Agriculture): Plant from Maryland (43084); plant from Maryland, collected by R. H. Pond (43814); specimen of *Seseli libanotis* from Maryland (44601).

NURSE, Maj. C. G., Quetta, India: 10 species of Indian Hymenoptera (43233).

NYE, WILLARD, jr., New Bedford, Mass.: Crab (*Planes minutus*) from Sakonnet Point, R. I. (43907).

O'DONOGHUE, GEORGE, executive mansion, Porto Rico: Crab spider, *Agastercantha tetracantha*, found by Mr. Sheridan Lee (43710).

OEHLERT, D. P. (See under Paleontologia Universalis, Laval, Mayenne, France.)

OFFER, WILLIAM C., Miami, Fla.: 2 specimens of shell limestone (44598).

OHERN, D. W., Johns Hopkins University, Baltimore, Md.: Collection of rocks (43236).

OHM, F. (received through N. H. Darton): Pyrite from the Potomac formation at Eckington, D. C. (44217).

OLDROYD, Mrs. T. S., Longbeach, Cal.: About 410 land and marine shells from Cuba and Florida (43276); shells from San Pedro and Florida (43987).

OLIVER, G. W., Washington, D. C.: Orchid (*Habenaria blephariglottis*) (43121).

OLIVER, JAMES, Chignik, Alaska (received through T. W. Stanton): 8 stone and bone implements from the shore of Chignik Bay (43659).

ORCUTT, C. R., San Diego, Cal.: 31 plants from California and Lower California (43189: gift; 43281: exchange); 12 plants from California and Mexico (43381: exchange); skulls of lynx and badger, and plants (43416: exchange); skin of rattlesnake, *Crotalus lucifer* (43447: gift); specimen of *Echinocactus* from California (43877: exchange); plants and a specimen of *Porzana carolina* (44092: exchange); about 50 specimens of living plants from Mexico (44467: gift); 3 living plants from California (44537: exchange).

ORD, Capt. JAMES T., U. S. Army (deceased) (received through Mrs. Lucy Ord Donaldson, Bloomfield, N. J.): Collection of historical and archeological specimens from Mexico and Porto Rico (10370: loan).

ORTMANN, A. E. (See under Carnegie Museum.)

OSBURN, RAYMOND C., New York City: Dragonflies (*Sympetrum madidum* Hagen and *Mesothemis callocata* Hagen) (44068).

OSGOOD, W. H. (See under Department of Agriculture.)

OSTERHOUT, G. E., New Windsor, Colo.: Plant from Colorado (43491).

OSWALD, WILLIAM, Covington, La.: "Congo snake," *Amphiuma means* (44381).

OUTES, FELIX F., Buenos Aires, Argentina, South America: 30 specimens of aboriginal remains from the Argentine provinces of Entre-Rios, Buenos Aires, and Corrientes (43436).

OWSTON, ALAN, Yokohama, Japan: Reptiles and batrachians from Japan (43377: gift; 42967: purchase).

PAÉZ, JOSÉ A., New Brighton, Staten Island, N. Y.: Sword of Gen. Simón Bolivar and a sword presented to Gen. José Antonio Paéz by King William IV of England (9906: loan).

PAGE, A. D. (See under General Electric Company.)

PAGE, L. W., Department of Agriculture, Washington, D. C.: Sand-facetted quartz pebbles from Marthas Vineyard, Massachusetts (43283).

PAINE, J. H., Los Angeles, Cal.: 6 mollusks from California (42975).

PAINTER, J. H., U. S. National Museum: 3 plants from Maryland (43211); 2 joints and 16 fruits of cactus (43473); 2 specimens of *Polygyra thyroides* from Chesapeake Beach, Md. (44353). (See under Francis Pennell; J. N. Rose; and F. J. Tyler.)

PAISLEY, R., Leakville, Va.: Cecropia-moth, *Attacus cecropia* (42959).

PALEONTOLOGIA UNIVERSALIS, Laval, Mayenne, France (received through D. P. Oehlert, secretary): 2 valves of *Volupia rugosa* from Féoville, France (43574).

PALMER, EDWARD, Department of Agriculture, Washington, D. C.: 12 plants and specimens of Indian manufacture from Mexico (43066; 43666: gift); 500 plants from Mexico (43937: purchase); 300 land and fresh-water shells from Mexico (44108: gift). (See under Department of Agriculture.)

PALMER, JOSEPH, U. S. National Museum: Jaw bone of a horse—used as a musical instrument by southern negroes (43467).

PALMER, WILLIAM, U. S. National Museum: Lizard, *Eumeces*, from Fairfax County, Va. (43142: collected for the Museum); 6 plants from Newfoundland and Virginia (43206: exchange); frog, *Rana sylvatica* (43391: collected for the Museum); 22 plants from the District of Columbia (43474: collected for the Museum); 130 plants from Oregon (44436: collected for the Museum); reptiles and batrachians (44470: collected for the Museum); 7 starfishes from Victoria, British Columbia (44544: collected for the Museum); mammals from Oregon (44562: collected for the Museum); 4 specimens of fossil coniferous wood from the bank of the Columbia River, Bonneville, Oreg. (44564: gift); about 200 fresh-water and land shells from Portland, Oreg., and 15 birds' skins from Oregon (44576; 44579: gift); mummy of a rare bat from Mexico (44593: gift).

PAMMELL, L. H., Ames, Iowa: 48 weeds and useful plants from Iowa (43600: exchange).

PARIS, FRANCE, MUSEUM OF NATURAL HISTORY (received through E. L. Bouvier): 3 crayfishes and 8 crabs (43092; 44236: exchange).

PARISH, S. B., San Bernardino, Cal.: 3 plants from California (43079): Received through E. L. Greene, plant from California (43154).

PARLIN, J. C. (See under Department of Agriculture.)

PASO Y TRONCOSO, Don Francisco del. (See under Mexico, Mexico.)

PASSMORE GEM COMPANY, Boston, Mass. (received through H. G. Webb, president): 2 colored photographs of tourmalines found at Rumford Falls, Me. (43449).

PATTEE, Rev. C. R., Los Angeles, Cal.: 156 marine shells from California (43748: exchange).

PATTON, Miss JULIA C., Washington, D. C.: 25 plants from Tennessee and North Carolina (43210: exchange).

PAYN, ELIAS J., Olympia, Wash.: 9 marine mollusks from Puget Sound, Washington (43188); specimens of gold ores from Tredwell gold mine, Kittitas County, Wash. (43243).

PAYNE, Mrs. COLUMBIA N., Washington, D. C.: Case containing 14 specimens showing the construction of the Atlantic cable of 1858 (10558: loan).

PEABODY MUSEUM, Salem, Mass. (received through E. S. Morse): Carrying yoke, bow, quiver, and 18 arrows, shallow pot, small bottle-shaped vessel, violin and bow, 2 specimens of boy's top, 2 dolls, brass dish, flint and steel, pack of cards, and pot for cooking rice, from Sumatra (44264: exchange).

PECK, FRANK L., Georgetown, Colo. (received through F. W. Crosby): Carbon residue from an iron cogwheel found in the Atlantic Shaft, U. S. Patent No. 162, Clear Creek County, Colo. (43419).

PECKHAM, G. W., Milwaukee, Wis.: 2 moths (43034).

PEELER, W. L., Goldfield, Nev.: 2 geological specimens from Nebraska (44091).

PENNELL, FRANCIS, Wawa, Pa. (received through J. H. Painter): Specimen of *Aristolochia clematitis* Linn., from Pennsylvania (43090); 23 plants from Pennsylvania (44198; 44510; 44615).

PENNSYLVANIA MARBLE AND GRANITE COMPANY, West Grove, Pa. (received through Interior Department, U. S. Geological Survey): Sample of white marble (44095).

PENNSYLVANIA, UNIVERSITY OF, Philadelphia, Pa. (received through J. Percy Moore): 3 type specimens of Isopod (*Tanais robustus* H. F. Moore) (43955).

PERGANDE, THEODORE, Department of Agriculture, Washington, D. C.: 3 specimens of *Amnicola* from Piney Point, Md. (42974); crustaceans from Virginia and the District of Columbia (43262).

PERKINS, JAMES L., Talklai, Ariz.: Stone ax from ruins near Rice Station School, received through Aleš Hrdlička (44439).

PERKINSON CONSTRUCTION COMPANY, St. Louis, Mo. (received through M. W. Lyon, jr.): Siliceous concretions (43162).

Person, W. C., Newport News, Va.: Specimen of *Loligo pealii* Les., from Virginia (43220). Returned.

Peterson, Miss Evelyn, Long Branch, N. J.: Weaver bird, *Munia rubronigra* (44239).

Peyster, Gen. John Watts de. (See under Smithsonian Institution, and War Department.)

Pfordte, O. F., Rutherford, N. J.: Concretions (43517); specimen of datolite (43518). Exchange.

Philippine Commission at the Louisiana Purchase Exposition: Ethnographic collections from the islands, and also specimens of lumber (4445; 44595).

Pierce, E. W., Boise, Idaho: Case-bearing larva of *Coleophora* (44430).

Pierce, W. D., Department of Agriculture: 21 types and cotypes of *Myodites solidagenis*, 2 types of *Rhipiphorus acutipennis* and a type of *Myodites minimus* (43806).

Pierce, Wright M., Claremont, Cal.: 6 eggs of Bewick's wren, *Thryomanes bewickii charienturus* (44547).

Pilsbry, H. A., Philadelphia, Pa.: Mollusks, viz: 15 specimens of *Cerion iostomum* Pfr., from Cuba (43562); 5 specimens of *Ashmunella rhyssa hyporhyssa* Ckll., from New Mexico (43749); 20 specimens of *Polygyra* from Texas (44321); 3 specimens of *Corbicula* from Japan (44257).

Piper, C. V., Department of Agriculture, Washington, D. C.: 177 plants collected by J. S. Cotton in Washington (43631); 137 plants collected in Oregon by R. W. Gorman (43649); 95 plants from Washington (43572; 43688); 5 plants from Washington, including 2 type-specimens and a duplicate of a type (43765; 44009); 53 plants collected by Mr. Piper and J. S. Cotton in Washington (44013); orchid from Cascade Mountains (type-sheet of *Listera caurina* Piper) (44086). (See under Department of Agriculture and C. R. Waldron.)

Pirsson, L. V. (See under Interior Department, U. S. Geological Survey.)

Pissaro, Mons., Paris, France: Specimens of French Tertiary fossils (43731: exchange).

Pittier, H., San José, Costa Rica, Central America, and Washington, D. C.: 5 plants from Costa Rica (43463: exchange); 5 specimens of cactus fruit from Panama (44080: gift).

Plank, E. N., Decatur, Ark.: Plants from different sections of the United States (44570).

Platt, Mrs. J. P., Washington, Conn.: Indian blanket obtained by Charles H. Buchanan (44426).

Plesner, Nicolay, Christiania, Norway: Dike rock and rutile ore from Lindvikskollen Rutil mine, Krageroe, Norway (43634); specimen of potash feldspar from Smaalenene, Norway (44050).

Plummer, F. G. (See under Interior Department, U. S. Geological Survey, and David White.)

Pollard, Mrs. E. B., Georgetown, Ky.: Wooden flute made by a California Indian (44115: exchange).

Pomeroy, O., Alamogordo, N. Mex.: Fragments of pottery of the ancient pueblo type, also photographs of other pieces (43725).

Pond, R. H. (See under J. B. S. Norton.)

Pope, Mr. and Mrs. Charles A., New York City: Examples of Inca textile work, representing nearly all the variations of ancient Peruvian weaving (43709); specimens of Inca pottery, constituting the remainder of the "Charles A. Pope collection" (43767).

Pope, J. E. B., Washington, D. C.: Plant (43005).

Porter, Potter, Evansville, Ind.: 2 Cecropia moths (44517).

Pratt, Miss Alice D., Marion, N. C.: 5 plants from North Carolina (43354).

Preble, E. A., Department of Agriculture, Washington, D. C.: 6 pairs of snowshoes (44452: purchase). (See under Smithsonian Institution, Bureau of American Ethnology, and Department of Agriculture.)

Prescott, J. O. (See under American Record Company.)

Price, B. J., Treasury Department, Washington, D. C.: Malleable nickel medal (44382).

Pringle, C. G., City of Mexico, Mexico, and Burlington, Vt.: 17 plants from Mexico (42972; 43155; 44078; 44540). (See under Vermont, Herbarium of the University of.)

PRYOR, F. R., Minersville, Utah: Specimen of psilomelane (43160).

PURPUS, C. A., San Diego, Cal., and City of Mexico, Mexico: 12 plants from Mexico (43021: purchase); 59 plants from Mexico (43022; 43024; 43033: gift); 37 plants from Mexico (44520: purchase). (See also under T. S. Brandegee.)

QUARTERMAN, GEORGE M., Nathan, Fla.: Larva of a species of *Dicælus*, probably *D. costatus* (44245).

QUARTERMAN, Mrs. J. R., Titusville, Fla.: 4 eggs of Florida jay, *Aphelocoma cyanea* (44549).

RAFFERTY, Mrs. JULIA KILPATRICK. (See under "Kilpatrick Collection.")

RAILWAY APPLIANCE EXHIBITION. (See under Continuous Rail Joint Company of America, Newark, N. J., and Lorain Steel Company, Lorain, Ohio.)

RALPH, W. L., U. S. National Museum: Gray squirrel collected for the Museum (42986); batrachians from the District of Columbia (43115); 10 deer from New York (43526); 122 birds' eggs and 37 nests of North American species (43664); weasel (43685); Ruffed grouse, *Bonasa umbellus* (43713); 6 specimens of ruffed grouse, *Bonasa umbellus* (43735); about 20 specimens of isopods from New York State (43916); 2 turtles (43968); 3 eggs of bald eagle, *Haliæetus leucocephalus* (44457); nest, 3 eggs and 17 birds from different parts of North America (44489). Gift.

RALPH, W. L. and J. W. DANIEL, Jr., Washington, D. C.: 14 birds' eggs and 5 nests, 17 birds, 48 mammals, and 4 reptiles collected at Lake Drummond, Dismal Swamp, Virginia (44469).

RAMSTADT, HANRY, Jr., Chicago, Ill.: Specimens of Lepidoptera (43846; 44268).

RANSOME, F. L., U. S. Geological Survey: Specimen of vanadanite from Globe, Ariz., collected by H. W. Clark (44568).

RASTAMJI EDULJI DUSTOOR PESHOTAN SANJANA, deputy high priest of the Parsees, Bombay, India: Sudra, or Parsee religious garment, consisting of a linen dress (43536).

RATHBUN, Mrs. C. S., Redondo, Los Angeles County, Cal.: Sea Pen (43459: exchange).

RATHBUN, Miss M. J., U. S. National Museum: Isopods, shells, and insects from Lanesboro, Berkshire County, Mass. (43257).

RAULERSON, PETER, Tentic, Fla. (received through A. W. Barber): Steel chisel from a battlefield (Seminole war), near the mouth of Taylor Creek, Lake Okechobee, Florida (44220).

RAYMOND, J. S., Marine-Hospital Service, Washington, D. C.: Wood, bored by *Limnoria lignorum*, from the south Atlantic Quarantine Station (44159); 2 pieces of wood bored by *Sphæroma* and a piece of wood bored by *Teredo* from Hillsboro River, Tampa (44332); piece of wood with borings and crustaceans (44505).

REA, A., Tajique, Torrance County, N. Mex. (received through Biological Survey, Department of Agriculture): Snake, *Pituophis*, from New Mexico (43396).

REED, Rev. LUTHER D., Jeannette, Pa.: Liturgy "The Choral Service Book" (43334).

REEDER, JOHN T., Calumet, Mich.: Specimen of copper with silver (44267).

RENN, PAUL, Fallon, Mont.: Cretaceous fossils (43717).

REVERCHON, J., Dallas, Tex.: 5 plants from Texas (44342). (See also under B. F. Bush.)

RICHMOND, A. M., East Orange, N. J.: Button given to the guests at the sixtieth wedding anniversary celebration of Mr. and Mrs. Richmond (43911).

RICHTER, FRANZ, Vienna, Austria: Græco-Egyptian encaustic portrait from graves of Rubaiyat, Province of Fayum, Egypt (43048: purchase, L. P. X).

RICKER, P. L., Department of Agriculture, Washington, D. C.: 119 mosses from Maine and vicinity (43200: exchange); plant from New Mexico, collected by G. G. Hedgcock (43059: gift); 6 North American mosses (44085: exchange).

RICKETTS, H., Globe, Ariz.: 15 living cacti from Arizona (44331: gift; 44493: exchange).

RIDGWAY, ROBERT, U. S. National Museum: 3 birds' skins from the eastern United States (43656).

RILEY, J. H., U. S. National Museum: Bat, *Pipistrellus subflavus* (43124: collected for the Museum); 25 birds' skins and 3

mammal skins from Virginia (43553: gift); skin of Baltimore oriole, *Icterus galbula* (44508: gift).

RING, J. H., Ferndale, Cal.: Skeleton and 3 photographs of a Beaked whale (*Berardius*), stranded near Ferndale (43595, 44491).

RIO JANEIRO, BRAZIL, SOUTH AMERICA: NATIONAL MUSEUM OF BRAZIL (received through Carlos Moreira): 25 crabs from Brazil (44286: exchange).

ROADHOUSE, J. E., San Luis Obispo, Cal.: Living plant from California (44437).

ROBBINS, G. COLLIER, San Diego, Cal. (received through F. W. Crosby): Copper nugget from Lower California (43621).

ROBBINS, R. H., Mena Ark.: Male Stag-beetle, *Lucanus elaphus*. Fabr. (44409).

ROBINSON, SETH B., New York City: Memorial locket of Gen. George Washington (44164: deposit).

ROBINSON, Capt. WIRT, U. S. Army, Fort Totten, N. Y.: 11 Lepidoptera, 3 Diptera, and an orthopterous insect (43269); Wheatear, *Saxicola œnanthe leucorhoa* from Cuba, new to that island (44247); 14 Lepidoptera (44278).

ROCHA, FRANCISCO DIAS DA, Ceara, Brazil, South America: Galls and parasitic Hymenoptera from Brazil (42991).

ROCKHILL, Hon. W. W., Washington, D. C.: Musical instrument, lamp decorations, and a cabinet from China (44174).

RODGERS, R. L. (See under Hon. Theodore Roosevelt.)

ROEBLING, W. A. (received through W. F. Hillebrand): 15 zeolites from Moores Station, N. J. (43596).

ROEMER-MUSEUM. (See under Hildersheim, Hanover, Germany.)

ROOME, A. E., superintendent of telegraph, Southern Pacific Company, San Francisco, Cal.: 12 telegraphic insulators; one of the original telegraph keys used in the first overland railroad telegraph lines on the Central Pacific Railroad; section of telegraph pole from the original telegraph line in the vicinity of Wadsworth, Nev. (43532).

ROOSEVELT, THEODORE, President of the United States: Bombshell and minie balls from the battlefield of Atlanta, together with a pamphlet and letter from Mr. Robert L. Rodgers relating to them (43694); outfit of a Brazilian horseman, consisting of a saddle, bridle, halter, 3 saddle blankets, lap robe, 2 girths, a bola, horn, and lasso (43704); penrack and 2 penholders made from wood taken from the floors of the homestead of Abraham Lincoln at Springfield, Ill. (43714); collection of ethnological objects from the Philippine Islands, including a net used by the natives to catch deer, aiguillettes (silver and silver cord), 5 cockspurs, wooden cup and 2 dice, red woven silk sash with gilt tassels, "Borong," or native bolo, presented by "Momma" on behalf of the Samal Moros, and native sash, pieces of native cloth from the same source (43839); 2 ash trays made from oyster shells taken from Bay Adam, Louisiana (43969).

ROSE, J. N., U. S. National Museum: 100 plants, principally from Mexico (43044); 100 plants (44011); 100 cacti (44128). Collected for the Museum. (See also under F. Altamirano.)

ROSE, J. N. and J. H. PAINTER, U. S. National Museum: 276 plants from Pennsylvania (43091: collected for the Museum).

ROSTROKE, M., Scranton, Pa.: Aphideous gall (43137).

ROTH, CHARLES I., Bellingham, Wash.: 2 specimens of sandstone from quarries at Bellingham (43604).

ROTHGEB, D. A., Leaksville, Va.: Beetle, *Dynastes tityus* Linn. (42960).

ROWLEY, R. R., Louisiana, Mo. (received through R. S. Bassler): 200 Kinderhook brachiopods from Louisiana, Mo. (43460).

ROYAL BOTANICAL GARDENS. (See under Calcutta, India; and under Kew, London, England.)

ROYAL BOTANICAL MUSEUM. (See under Berlin, Germany.)

ROYAL GEOGRAPHICAL SOCIETY, LONDON, ENGLAND (received through the British Royal Commission at the Louisiana Purchase Exposition): Collection of framed illustrations (44589).

ROYAL SIAMESE COMMISSION AT THE LOUISIANA PURCHASE EXPOSITION: Collection of lacquers, basketry, etc. (44420: purchase); snakes, birds' nests, mammals (44424: gift); ethnological objects illustrating the social life of Siam (44425: gift).

ROYAL ZOOLOGICAL AND ANTHROPOLOGICAL-ETHNOGRAPHICAL MUSEUM. (See under Dresden, Germany.)

RUTTER, CLOUDSLEY. (See under Department of Commerce and Labor, Bureau of Fisheries.)

SAFFORD, WILLIAM E., Department of Agriculture, Washington, D. C.: 1,070 plants (43163).

SANDBERG, J. H., and J. B. LEIBERG. (See under Department of Agriculture.)

SANDERS, B. L., Adamsville, Tenn.: Nest of Orchard oriole, *Icterus spurius* (44208).

SANDS, W. A., Auburndale, Fla. (received through N. R. Wood): Dragonfly (44276).

SÃO PAULO, MUSEU PAULISTA (received through H. von Ihering, director): 6 skins and skulls of bats (42953: gift); 37 specimens of *Vespoides* (43424: exchange).

SARDESON, F. W., Minneapolis, Minn.: Specimen of the rare crinoid representing the species *Cremacrinus punctatus* Ulrich from the Ordovician of Minnesota (43665: exchange).

SARGENT, R. H., Tombstone, Ariz.: 3 cacti (43965).

SAVAGE, Rev. William R., Blowing Rock, N. C. (received through J. D. McGuire): Unfinished ceremonial stone (43365).

SCHAEFFER, CHARLES, Brooklyn, N. Y.: 2 species of *Vespoidea* (43371).

SCHALLER, W. T., Washington, D. C.: Tourmalines from southern California (43476: purchase).

SCHIFFBAUER, Miss MINNIE, Talklai, Ariz. (received through Aleš Hrdlička): Metate, rubbing stone and perforated stone disk from ruins near Rice Station school (44440).

SCHLECHTER, Mr. (See under Dr. K. Schumann.)

SCHMID, E. S., Washington, D. C.: Parrot, *Eclectus roratus*, from the East Indies (43060); received through George Marshall, crab, *Cardisoma* (43085); 2 lizards, *Phrynosoma* and *Anolis* (43143); a golden pheasant, *Chrysolophus pictus* (43746).

SCHMIDT, PETER, Zoological Museum, Imperial Academy of Sciences, St. Petersburg, Russia: 7 species of fishes, viz, *Microstomus stelleri; Acanthopsetta nadeshnyi; Pseudoblennius elegans; Cottiusculus gonez; Podothecus thompsoni; Chlœa aino* and *Hypoptychus dybowskii* (43086).

SCHÖNLAND, S. (See under Grahamstown, South Africa, Albany Museum.)

SCHOOLCRAFT, Mrs., Washington, D. C.: About 100 plants from Michigan (43300).

SCHREINER, JACOB, St. Petersburg, Russia: 24 species of Hymenoptera (43352); 15 Russian Hymenoptera (43568).

SCHUBER, Mrs. E. W., Livingston, Mont.: 150 plants from Selkirk Mountains, British Columbia (43976: purchase).

SCHUCHERT, CHARLES. (See under Yale University Museum.)

SCHUMANN, K., Berlin, Germany: 1,646 plants from South Africa, collected by Mr. Schlechter (43249: purchase).

SCHWAB, E. H., Schulenburg, Tex.: Luna moth, *Tropæa luna* Linn. (44161).

SCHWARZ, E. A., Department of Agriculture, Washington, D. C.: 3,500 insects, chiefly Coleoptera, from Cayamas, Cuba (44106). (See also under Department of Agriculture, and R. P. Currie.)

SCHWARZ, E. A., and H. S. BARBER, U. S. National Museum: 79 plants from Arizona (44036: collected for the Museum).

SCOTT, J. G., Philadelphia, Pa.: Frond of *Asplenium ebenoides*, obtained by R. R. Scott (43448: exchange).

SCOVELL, J. T. (See under Department of Commerce and Labor, Bureau of Fisheries.)

SCRIPTURE, E. W. (See under Smithsonian Institution.)

SCURLOCK, H. C., Washington, D. C.: Female skeleton of a full-blood negro (43582); skeleton and brain of a full-blood negro woman (43616); skeleton of an adult negro (43778).

SEAL, W. P., & SON, Delair, N. J.: Crayfishes and shrimps (44110).

SENFF EXPEDITION. (See under Bashford Dean.)

SETON-KARR, H. W., London, England (received through Municipal School of Science and Art, Tullie House, Carlisle, England): Two neolithic polished stone implements from Bundelkund, India (43489).

SETON, ERNEST THOMPSON, Cos Cob, Conn. (received through Biological Survey, Department of Agriculture, Washington, D. C.): Two squirrel skins from Norway and skins and skulls of 3 rabbits from Kansas (42993); received through Department of Commerce and Labor, Bureau of Fisher-

ies, collection of batrachians from Manitoba (43801).

SEWALL, HAROLD I., Washington, D. C.: Collection of Japanese and Chinese potteries and porcelains, and Japanese lacquers; one piece of bronze, and one steel sword guard (10548: loan).

SHAW, C. H., Collegeville, Pa.: 561 plants collected in British Columbia (43961: purchase).

SHEDD, S. (See under Washington State College.)

SHEPPEY GLUE AND CHEMICAL WORKS (LIMITED), London, England (received through British Royal Commission at the Louisiana Purchase Exposition): Samples of glues, chemicals, etc. (44558).

SHERMAN, CHARLES E., Lawrence, N. Y.: 4 small horsehair baskets made by the Franciscan nuns at Linares, Chile (43858).

SHERMAN, FRANKLIN, Jr., Department of Agriculture, Raleigh, N. C.: 14 butterflies (43927).

SILVESTRI, FILIPPO, Portici, Italy: Collections of parasitic Hymenoptera (43089; 43505; 43821).

SIMMONS, H. J., Galveston, Tex. (received through James Douglas): 2 ivory beads found in ballast pits at the mouth of Clear Creek, near Galveston (42988).

SINGER, G. P., Lock Haven, Pa.: Insect gall, *Callirhytis seminator* Harris, and a plant (*Angelica*) (44449).

SISK PHARMACY, Andrews, N. C.: Chrysalis of a butterfly (44608).

SKIFF, F. J. V. (See under Field Columbian Museum.)

SLOAN, EARLE. (See under South Carolina Geological Survey.)

SMALL, J. K., New York Botanical Garden, New York City: 7 cacti from Florida (43478). (See under Department of Agriculture.)

SMITH, Miss BAYARD, Baltimore, Md.: Seaweed, skin of sea eel or moray, *Channomuræna vittata*, from the coast of Cuba or Bermuda; and a collection of ethnological objects (44328: gift); collection of wearing apparel of the Colonial period (10334: loan).

SMITH, GEORGE O. (See under Interior Department, U. S. Geological Survey.)

SMITH, JOHN B., New Brunswick, N. J.: 7 parasitic Hymenoptera (42936; 43093); 8 authentic specimens of mosquito, *Culex pretans* Grossbeck, bred from typical larvæ (44253).

SMITH, JOHN DONNELL, Baltimore, Md.: 2 plants (43690); 2 plants from Guatemala (44064; 44180); specimen of *Crescentia cujete* L., from Guatemala (44199). (See under Smithsonian Institution.)

SMITH, ROBERT R., Devils Lake, Canada: Spider, *Menumena batia* Clerck (42978).

SMITH, SAMUEL, Bureau of Engraving and Printing, Treasury Department, Washington, D. C.: 12 eggs of *Colinus virginianus* (43227).

SMITHSONIAN INSTITUTION, Mr. S. P. Langley, Secretary: Commemorative medal of the fiftieth anniversary of the University of Wisconsin (43040). 2 horns from Italy; 2 wooden shoes and a bronze Egyptian statuette (43067); 2 fire-backs (43286); bowlder (shell), 5-franc piece, bronze medal, with the head of Napoleon on the obverse, and a shell (43309); 4 tombstones and a cornerstone of the colonial period, also a horseshoe, evidently of the colonial period of New York (43408, 44606); Chinese coin sword ornament (43608): presented by Gen. John Watts de Peyster. Bronze medal struck in commemoration of the Bi-Centennial Jubilee of the Berlin Academy of Sciences (43264): received through the German ambassador. Herbarium and botanical library, consisting of over 100,000 plants and over 1,500 books (43791): received from John Donnell Smith. Phonograph voice record of the Emperor of Germany, with copper matrix (43934): presented by E. W. Scripture, Phœnetic Laboratory, Berlin, Germany. 3 Langley aerodromes (44336). Bones of mammoth, horse, etc., from Alaska, collected by A. G. Maddren (44453). Bronze medal struck by the order of the court of common council to commemorate the visit of King Edward VII and Queen Alexandra to the city of London, October 25, 1902 (44497).

Transferred from the Bureau of American Ethnology, Mr. W. H. Holmes, chief: Cherokee pot, obtained by purchase from Gossett Boone, Cullowhee, N. C. (43106); discoidal chunky stone of quartzite and a perforated tablet of slate,

obtained from M. V. Hartwell, Clifton, Tenn. (43384); ethnological specimens illustrating researches on the heraldic system of the Kiowa Indians, collected by James Mooney, of the Bureau, in Oklahoma and Indian Territory (43633); collection of flint implements and quarry rocks from Missouri, Tennessee, and Illinois, obtained by Gerard Fowke, of the Bureau of Ethnology (43826); collection of Mexican relics, consisting of an obsidian knife from San Pablo, District Texcoco, Valley of Mexico; jadeite ornament from Xoxo, near Oaxaca, Mexico; decorated vase from Xoxo, and a small earthenware vessel, obtained by purchase through Mr. William Bauer, City of Mexico (43827); 24 charm stones from an ancient lake bed in Sonoma County, Cal., obtained from L. W. Stilwell, Deadwood, S. Dak. (43828); ethnological objects from the Pueblo Indians, obtained by Mrs. M. C. Stevenson, of the Ethnological Bureau (43829); ethnological objects obtained by Lieut. G. T. Emmons, U. S. Navy, Princeton, N. J., from the Indian tribes of the Northwest coast (43830); canoe models from the Indian tribes of the Northwest coast, obtained by E. A. Preble, of the Department of Agriculture (43821); 152 stone implements from Pennsylvania, obtained from D. T. Hanley, Baltimore, Md. (43832); ethnological objects from the Indian tribes of the Northwest coast, obtained by John R. Swanton, of the Bureau of Ethnology (43833); Kiowa buffalo shield obtained from Fred. Harvey, Albuquerque, N. Mex. (43851); Indian bones from Sewall's Point near Norfolk, Va., collected by J. D. McGuire, of the Bureau of Ethnology (44230); 20 large flint blades, part of a cache from mound in Montezuma village, Pike County, Ill., obtained through D. I. Bushnell and J. M. Wulfing, of St. Louis, Mo. (44560). (See under Mrs. S. Bradford.)

Transferred from the National Zoological Park, Dr. Frank Baker, superintendent: Skin of Angora goat, *Capra hircus;* skin of Wallaby (*Macropus ruficollis bennetti*) and skin of Bandicoot rat, *Perameles* (43310); Blue fox, *Vulpes lagopus*, hedgehog (*Erinaceus europæus*), Little spotted skunk (*Spilogale ringens?*) (43311); 2 Parsonfinches and an Anhinga (*Anhinga anhinga*) (43312); specimen of Spidermonkey, *Ateles* (43313); Snake-bird, *Anhinga anhinga*, Flamingo, *Phœnicopterus ruber*, and Night heron, *Nycticorax griseus* (43314); Golden eagle, *Aquila chrysætos*, Wood ibis, *Tantalus loculator*, and Anhinga, *Anhinga anhinga* (43315); Puma (*Felis concolor*) (43316); Congo snake, *Amphiuma means* (43317); 3 Gray wolves, *Canis occidentalis* (43318); Giant kingfisher, *Dacelo gigas*, Mountain partridge, *Oreortyx pictus*, and Cariama, *Cariama cristata* (43319); Black baboon, *Cynopithecus niger*, and a fox (*Vulpes lagopus*) (43320); Giant kingfisher, Green jay and Anhinga (43321); White-throated capuchin, and Baboon (43322); Ruffed lemur, fox, lynx, and a puma (43323); fox, elk, and Sooty mangaby (43324); Little blue heron, *Ardea cærulea*, California linnet and Bittern (*Botaurus lentiginosus*) (43325); 2 foxes (*Vulpes lagopus*) (43326); alligator (*Alligator mississippiensis*) (43327); 3 Blue foxes (43328); 3 Blue foxes and a Kit-fox (43329); Common aguti, *Dasyprocta aguti*, and an Anhinga (43488); Wild boar, *Sus scrofa* (43481); 49 animals (43482); Piping crow, *Gymnorhina*, and a Cuban tree-boa, *Epicrates angulifer* ((43493); Rattlesnake, ibis, teal, and 18 tropical cardinals (43538); *Cygnus olor* and an unidentified bird (43547); Kinkajou, *Cercoleptes caudivolvulus* (43548); Cassowary, *Casuarius galeatus* (43550); Green jay, *Xanthoura luxuosa* (43563); skins of *Aix sponsa* and *Bubo virginianus* (43642); skin of Black lemur, Phalanger (*Phalangista fuliginosa*) and Black-footed jackal, *Canis mesomelas* (43643); 4 specimens of *Canis dingo* (43644); specimen of *Ateles geoffroyi*, Prong-horn antelope, *Antilocapra americana*, and Harbor seal, *Phoca vitulina* (43645); Roe deer, *Capreolus caprea*, Great horned owl, *Bubo virginianus*, Acouchy (*Dasyprocta acouchy*) (43646); Sooty mangaby, *Cercocebus fuliginosus* (43647); Dingo (*Canis dingo*) (43660); skin of *Dasyurus* (43668); Toucon (43672); Harbor seal (43673); skin of baboon (43674); *Urocyon cinerea argentatus* (43679); pigeon (43680); wood duck (43686); Harbor seal, *Phoca vitulina*

(43697); tinamou (*Rhynchotus rufescens*) (43698); lion 43703); Cacomitl cat, *Felis cacomitli* (43720); Bittern (*Botaurus lentiginosus*) (43721); Ocelot (*Felis pardalis*) (43733); Tasmanian wolf, *Thylacinus cynocephalus* (43750); Raccoon (*Procyon lotor*) (43751); 2 Great horned owls, *Bubo virginianus*, and Blue-winged teal, *Anus discors* (43752); 2 Blue foxes (43753); Olive agouti, *Dasyprocta acouchy* (43754); *Bubo virginianus* (43755); hawk (43756); *Nasua rufa*, and a Jaguar (*Felis onca*) (43785); King parrakeet, *Aprosmictus cyanopygius* (43786); Roe deer, *Capreolus caprea* and a Yellow-shouldered amazon, *Amazona ochroptera* (43787); *Calopsittacus novæ-hollandiæ* (43794); Common phalanger, *Trichosurus vulpecula* (43795); Virginia deer, *Odocoileus virginianus* (43818); Blue-fronted amazon, *Amazona aestiva* (43819); Cuban parrot, *Amazona leucocephala* (43820); Lynx (*Lynx rufus maculatus*) (43841); Great blue heron, *Ardea herodias*, and Dusky duck, *Anas obscura* (43842); 2 specimens of *Capromys pilorides* (43862); 2 specimens of *Capromys pilorides* (43863); Western porcupine (*Erethizon epixanthum*), and a Jaguar (*Felis onca*) (43864); Dusky duck, *Anas obscura* (43865); Eyra cat, *Felis eyra* (43866); *Cypromys pilorides* (43867); Louisiana heron, *Ardea tricolor ruficollis* (43871); Serval (*Felis serval*) (43872); skin and skull of *Felis eyra* (43886); Cuban deer (*Odocoileus*), and Black lemur, *Lemur macaco* (43904); *Ardea herodias*, and *Ortalis vetula mccallii* (43905); *Trichosurus vulpecula* (43906); Bridled wallaby, *Onychogale frenata* (43915); Hutia (*Capromys pilorides*) and Rat kangaroo (43946); Red-ruffed lemur, *Lemur varius* (43947); 2 specimens of *Capromys pilorides* (43991); Wood ibis, *Tantalus loculator*, and Mute swan, *Cygnus gibbus* (43992); Black-tailed deer, *Odocoileus columbianus* (43993); 2 Swamp wallabys (*Macropus*) (43994; 44005); Mud hen (*Fulica americana*) (44042); Sloth bear, *Melursus ursinus* (44043); Aoudad, *Ovis tragelaphus* (44044); Scaled quail, *Callipepla squamata* (44051); Banded rattlesnake, *Crotalus horridus* (44052); Rattlesnake, *Crotalus adamanteus* (44053); Green-wing teal, *Anas carolinensis* (44054); 3 *Lynx caracal* (44099); American bittern, *Botaurus lentiginosus* (44100); Gopher (*Testudo carolina*) and Pine snake, *Pituophis melanoleucus* (44101); Macaw, *Ara macao* (44112); Daubenton's curassow, *Crax daubentoni* (44117); Canada lynx, *Lynx canadensis* (44120); Arabian baboon, *Papio hamadryas* (44121); skin and skeleton of *Boselaphus tragocamelus* (44148); Snowy owl, *Nyctea nyctea* (44149); Hamster (44150); Condor, Demoiselle crane and Golden eagle (44189); Green-winged teal, *Anas carolinensis* (44190); Rat kangaroo (44211); Pine snake, *Pituophis melanoleucus* (44222); Hawk and 2 specimens of *Tantalus loculator* (44271); Puffing lizard (44272); Marten, *Mustela americana* (44273); specimen of *Boselaphus tragocamelus* (44274); Louisiana heron, *Ardea tricolor ruficollis*, and Gopher snake, *Spilotes corais couperii* (44275); Cacomistle, *Bassariscus astutus* (44337); Coyote (*Canis latrans*) (44338); California partridge, *Callipepla californica* and a parrakeet (44339); Little blue heron, *Ardea cærulea* and American bittern, *Botaurus lentiginosus* (44340); Australian Thicknee, *Oedicnemus grallarius* (44388); 6 Blue foxes (44389); *Turdus musicus* (44390); Boa (*Boa constrictor*) and a Diamond rattlesnake, (*Crotalus adamanteus*) (44391); *Vulpes lagopus* and Mexican agouti, *Dasyprocta mexicana* (44392); specimen of *Capromys pilorides* (44498); Buffalo (*Bison americanus*) (44499); Black baboon (*Cynopithecus niger*) (44500); *Cracticus torquatus* (44512).

(See also under E. L. Moseley.)

Snyder, Dr. Elizabeth, Philadelphia, Pa.: Fragment of ancient fabric from Antelope Ruin, Cañon del Muerto, Arizona (43857).

Sommer, Karl E., Care Westinghouse Electric Company, Pittsburg, Pa., J. G. Sommer, H. O. Sommer, and H. Otto Sommer,. Washington, D. C.: Collection of relics of the battle of Gettysburg (9858: loan).

Soree, Moses, Dillon, Mont.: Specimens of graphite (43492).

South Carolina Geological Survey, Charleston, S. C. (received through Earle Sloan): 25 lots of Cretaceous and Ter-

tiary washings for micro-organisms from South Carolina (44290: exchange).

SOUTH METROPOLITAN GAS COMPANY, London, England (received through British Royal Commission at the Louisiana Purchase Exposition): Samples of chemicals, etc. (44557).

SOUTHWESTERN SLATE AND MANUFACTURING COMPANY, Slatington, Ark. (received through A. Danville, secretary): 3 specimens of roofing slate (43514).

SOWERBY & FULTON, London, England (received through W. H. Dall): Specimens of a new species of *Rectidens* from Ceylon (?) (42942).

SPENCER, CHAPMAN & MESSEL, (LIMITED), London, England (received through British Royal Commission at the Louisiana Purchase Exposition): Samples of chemicals (44555).

SPERING, Nathan. (See under C. W. Hickman.)

SPRAGUE, OLIVER H., Kendall, Wash.: 2 specimens of *Lysias orbiculata* (43101).

SQUYER, HOMER, Wibaux, Mont.: Minerals and fossils from Montana (44055).

STANTON, T. W., U. S. Geological Survey, Washington, D. C.: 12 specimens of echini and 200 marine shells from Alaska (43699); about 500 marine mollusks from Alaska (43812); 5 living plants (cacti) from Colorado and 5 specimens of cacti from New Mexico (44492, 44599). (See under James Oliver.)

STANTON, W. A., Jesuit College, Mauresa, Spain, and also of the Philippine Weather Bureau, Manila, P. I.: 47 specimens of parasitic Hymenoptera (43009); 70 specimens of Naiad mollusks from Wisconsin (43215).

STARRETT, T. (See under E. B. Ellis Granite Company.)

STATE, DEPARTMENT OF: Portrait of the Empress Dowager of China (43970).

STEAD, DAVID G., Department of Fisheries, Sydney, New South Wales: 4 photographs of fishes (43072).

STEARNS, ELMER, Modesto, Cal.: Cacti and seeds from California (43382, 43430, 43444: gift and exchange).

STEARNS, R. E. C., Los Angeles, Cal.: Mollusk (*Kennerleyia grandis* Dall) from Santa Monica, Cal. (43295).

STEELE, E. S., Washington, D. C.: 430 plants from the District of Columbia and vicinity (43919, 43063, 44204, 44296). (See under Department of Agriculture and C. V. Grant.)

STEINMETZ, F. C., Dayton, Ohio: Chrysalis of a butterfly (*Papilio* or *Danais*) (44551).

STEJNEGER, LEONARD, and GERRIT S. MILLER, Jr., U. S. National Museum: Collection of mammals, birds, reptiles, batrachians, plants, crustaceans, insects, and mollusks from Europe (43260: collected for the Museum).

STEPHENS, FRANK, San Diego, Cal.: Fossils from California, *Phacoides nuttali* Conrad (44212).

STEUART, C. A., U. S. National Museum: 3 sponges (43535).

STEVENSON, Mrs. M. C. (See under Smithsonian Institution, Bureau of American Ethnology.)

STEWART, DOUGLAS. (See under Carnegie Museum.)

STEWART, E. L., Starke, Fla.: 4 plants (*Galactia elliottii*) from Florida (44476).

STILES, ARTHUR, Victoria, Tex.: 10 living plants, 16 cacti, and 6 specimens of *Mamillaria* from Texas (43897, 43954, 43986).

STILWELL, L. W. (See under Smithsonian Institution, Bureau of American Ethnology.)

STOKES, Miss CAROLINE P., New York City, N. Y.: Desk used by Generals Grant and Lee at Appomattox on April 9, 1865, and 6 letters and clippings relating to the sale of the desk (43226, 43628).

STOLLER, JAMES H., Union College, Schenectady, N. Y.: Specimens of the crustaceans *Armadillidium quadrifrons* Stoller and *Ligidium longicaudatum* Stoller (43917, 43923).

STONE, WITMER, Philadelphia, Pa.: 51 specimens of violets (43014: exchange).

STOSE, G. W. (See under J. C. Hoyt.)

STRETCH, ROBERT, West Seattle, Wash.: Hymenopterous parasites bred from cocoons of *Apanteles* (44300).

STUHR, F. A., Portland, Oreg.: Mounted specimen of pheasant (*Phasianus torquatus*) from Oregon (44503); snake (*Charina bottæ*) (44616).

SUTER, HENRY, Auckland, New Zealand: 2 alcoholic specimens of a mollusk (*Trigonia margaritacea* Lam.) from Australia, col-

lected at Port Western, Victoria, by J. H. Gatliff (44131).

SWANTON, J. R. (See under Smithsonian Institution, Bureau of American Ethnology.)

SWINGLE, W. T., Washington, D. C.: 2 cacti from Arizona (44094). (See under Department of Agriculture.)

SWINGLE, Mrs. W. T., Washington, D. C.: 4 plants from California (44306).

TALBOTT, Mrs. LAURA O. Washington, D. C.: About 300 plants, including the collection of the late Miss Julia A. Wilbur (43435).

TAUSSIG, Mrs. ADOLF, Washington, D. C.: 8 eggs of Parrakeet (*Myopsittacus monachus*) (44618).

TAYLOR, C. B., Rae Town, Kingston, Jamaica: 5 birds' skins (*Sicalis jamaicæ*) and a set of eggs of Bullfinch (*Melopyrrha taylori*) (44073).

TAYLOR, Mrs. E. P., Thomasville, Ga.: 11 plants (42949, 43516).

TAYLOR, F. G. (See under W. J. Gardner.)

TAYLOR, Rev. G. W., Wellington, British Columbia: 9 moths (44277).

TAYLOR, W. E., Norfolk, Va.: Little Black Rail, *Porzana jamaicensis* (43403).

TAYLOR, WILLIAM STEWART, Madison, Va. (received through Lewis Lowry): Loon, (*Gavia imber*), from Virginia (44374).

TERQUEM, M. EM. (See under French Commission at the Louisiana Purchase Exposition.)

THETFORD MINES, Quebec, Canada (received through B. J. Bennett, manager, and collected by G. P. Merrill): Large block of Serpentine with veins of asbestos (43263).

THIEBAUD, CURTIS B., Manvel, Cal.: Bat (*Corynorhinus macrotis pallescens*) (43601).

THOMPSON, C. W., Greenback, Oreg. (received through F. W. Crosby): Gold ores from Greenback mine (43149).

THOMSON, E. BURSLEM, Miami, Fla.: Mass of worm tubes from Florida (44130).

THOMSON, G. M., Dunedin, New Zealand: 9 crustaceans (*Anaspides*) (43291).

THORNBER, J. J. (See under Department of Agriculture.)

THROCKMORTON, C. W., New York City: Larva of a "Golden-eyed fly," *Chrysopa nigricornis* (43798).

THUROW, F. W., Harvester, Tex. (received through Department of Agriculture, Washington, D. C.): 3 plants from Texas (43632); fishes (44546); Blue-tailed skink, *Eumeces quinquelineatus* (44480).

THURSTON, C. O., Kingston, Pa.: 3 moths (44000).

TIDESTROM, I., Washington, D. C.: Fern (*Lygodium*) from Maryland (43339).

TITCOMB, J. W. (See under Bureau of Fisheries, Department of Commerce and Labor.)

TOBIN, EDWARD. (See under George Hassell.)

TODD, Prof. J. E. (See under Interior Department, U. S. Geological Survey.)

TRACY, N. B., Auburn, Me.: Specimens of minerals (43140); specimen of lithia mica from the mines of the Auburn Tourmaline Company (43285); specimen of gold ore from the mines of the Androscoggin Milling and Mining Company (43410).

TRACY, S. M., Biloxi, Miss.: 517 plants from the Gulf coast (43126: purchase); 2 ferns, *Botrychium*, from Mississippi (43341: gift). (See under Department of Agriculture.)

TRASK, Mrs. BLANCHE, Avalon, Catalina Island, Cal.: 6 specimens of marine mollusks from Catalina Island (43241); 3 specimens of marine shells from Avalon and a specimen of seaweed (43700; 43920); 12 specimens of *Cerostoma nuttalli* Conr., from Catalina Island and a specimen of Chiton (44038).

TREASURY DEPARTMENT (received through R. B. Armstrong, Assistant Secretary): Specimen of coral sand and 10 birds' skins from Lisiansky Island, Hawaiian group, obtained by Capt. O. C. Hamlet of the Revenue-Cutter Service (42984).

TRESSLER, DORR, Meridian, Miss.: Beetle (*Dynastes tityus*) (44015).

TROSCHEL, A. P., Chicago, Ill.: 10 moths (44139).

TRUE, F. W., U. S. National Museum: Small collection of fishes and crustaceans from North Truro, Mass. (44322); 93 sheets of plants from Provincetown, Corn Hill, and Truro, Mass., small lot of insects from the same localities, and a small lot of marine invertebrates from Corn Hill (44581).

TRUE, R. H. (See under Department of Agriculture.)

TSUCHIDA, T., Misaki, Japan: Mammals from Japan (44563: exchange).

Tucker, E S., University of Kansas, Lawrence, Kans.: 67 Coleoptera (43271: exchange).

Turner, H. W., Turlingua, Tex.: Specimen of Terlinguaite from Marfa and Mariposa Mining Company's mines (43995).

Tyler, F. J., care Department of Agriculture, Washington, D. C.: 248 plants from Texas, received through J. H. Painter (43898). (See under Department of Agriculture.)

Tyler, James M. (See under Miss Katherine Miles.)

Tyler, Mrs. Marie Alice. (See under "Kilpatrick Collection.")

Uhler, Philip, Baltimore, Md.: 2 cotypes of Homoptera, namely, *Tibicens cruentifera* Uhler and *T. blaisdelli* Uhler (44516).

Ulrey, A. B., Los Angeles, Cal.: Sponge (44171).

Ulrich, E. O., and R. S. Bassler, U. S. Geological Survey and U. S. National Museum: Types of 25 species of fossils figured in the Illustration Sheet, Columbia Folio, No. 95, U. S. Geological Survey (43609); types of 40 species of Tertiary ostracoda (43718).

Ulrich, E. O. (See under Interior Department, U. S. Geological Survey.)

Unger, C. W., Pottsville, Pa.: 245 fossil plants (43128; 43367); fossil fern material (43546). This collection of plants from the Coal Measures in the southern anthracite field replaces, in a large measure, the types which were published by Leo Lesquereux in 1858, but have unfortunately been lost. Many of the specimens are therefore especially valuable as topotypes. In connection with the collection, Mr. Unger has also furnished the National Museum with important Paleozoic data for the correlation of the series with the Coal Measure groups in other regions.

Union Glass Company, Somerville, Mass. Received through Julian de Cordova, president. Collection of art glass made by the company (43908).

United States National Museum: The following models were made in the Anthropological Laboratory: Cast of bell of the first church erected in St. Louis (43185); casts of Zemes (43417); plaster cast (bronzed) made from a plaster cast reproduced from the death mask of Napoleon I (43522); models of three Etruscan tombs (43555); 7 casts of stone implements (43579); plaster casts of several prehistoric stone and pottery objects (43629); 2 plaster casts (one from the death mask of Napoleon I and the other from Houdon's Washington (43675); 4 busts of American Indians (43728); plaster casts of 20 stone implements from the northwestern section of the United States (43775); 6 plaster casts comprising a jade tablet from Nicoya, Costa Rica; slate box made by the Haida Indians; effigy vase from Mexico; bear mother made by the Haida Indians, obsidian cutlass, painted burial vase (43783); 4 casts of "great stone ax" lent by the Historical Society of Iowa; also cast of a copy of double-grooved ax in D. T. Bushnell Collection (43789); models of English pitch pipe and Moki wooden flute (43800); copy of tenor horn, and a copy of an organ tuning pipe (bass) (43853); 2 musical instruments (43868); copy in plaster of Keam vase in the Peabody Museum (43881); cast of double-grooved ax (44030); model of temple of pyramids of Mitla (44031); cast of first bell used on the first church built in St. Louis (44045); manikin of a Sioux chief (44387); model of a light-house at Cleveland, Ohio (44481); model of John Bull locomotive train and 2 models of the locomotive "Grasshopper" (44507).

University Museum, Ann Arbor, Mich.: Batrachians (44014).

Valentine, Mrs. S. M., Flatbush, Brooklyn, N. Y.: Original daguerreotype of Daguerre and a diorama painting by Daguerre (10150: loan).

Van Briggle Pottery Company, Colorado Springs, Colo.: 9 pieces of pottery, collected by Walter Hough at the Louisiana Purchase Exposition (44422).

Van Duzee, E. P., Buffalo, N. Y.: Received through Department of Agriculture. Specimens of 9 species of Australian Hemiptera, Pentatomidæ (43909: exchange).

Varker, Miss M. G., Long Island N. Y.: Plant and photographs of plant from Long Island (42995).

Vassiliew, Ivan, Ministère de l'Agriculture et des Domaines, St. Petersburg, Russia.

Parasitic Hymenoptera (43395; 43497; 43716).

VAUGHAN, F. E., New Haven, Conn.: 65 arrowheads from Michigan (43389); 6 arrowheads from Michigan or Arkansas (43757); 12 arrow points from Arkansas (44114). Exchange.

VAUGHAN, T. WAYLAND, U. S. National Museum: 93 land and fresh-water shells from Louisiana (44621).

VERDE ANTICO MARBLE COMPANY, London, England (received through Percy Clements, secretary): 3 unpolished pieces of Thessalian marble (43773); one polished hollow pedestal, from the Louisiana Purchase Exposition (44294); and 6 three-inch cubes, all from the quarries at Larissa, Greece (44602).

VERMONT, HERBARIUM OF THE UNIVERSITY OF, Burlington, Vt. (received through C. G. Pringle, curator): 222 plants from Europe and Mexico (44473: exchange).

VERRILL, A. E., Yale University, New Haven, Conn.: 5 specimens of corals (3 of them fragments of types) (44293: exchange).

VERWORN, MAX, University of Göttingen, Göttingen, Germany: 51 prehistoric stone and bronze objects from Germany and Italy (43784: exchange).

VETH, C. G., U. S. consular agent, Padang, Sumatra: 28 skins and skulls of mammals (44147: purchase).

VICTOR TALKING MACHINE COMPANY, Camden, N. J. (received through F. B. Middleton): Victor Fifth Talking Machine and 28 Monarch records (44561).

VIENNA, AUSTRIA: K. K. NATURHISTORISCHES HOFMUSEUM (received through A. Zahlbruckner): 200 plants (44235: exchange).

VIERECK, H. L., Philadelphia, Pa.: 4 cotypes of hymenopterous insect (*Halictus viereckii* Craw.) (43836).

VREELAND, V. K. (See under New York Botanical Garden.)

WAGENER, E. A., Adjuntas, P. R.: 5 ferns from Porto Rico (43340).

WAILES, L. A., New Orleans, La.: Mammal, reptiles, and seeds of plants (44067); fossil shell, *Cypræa mus*, variety *bicornis Sowerby* (44228).

WAITE, M. B., Washington, D. C.: Plants from the northern part of Illinois (43762); specimen of *Dudleya* from California (44203).

WALDRON, C. R., Agricultural College, South Dakota (received through C. V. Piper): 22 plants from North America (43648).

WALDRON, L. R., North Dakota Agricultural College and Experiment Station, Agricultural College, North Dakota: Springtails, genus *Isotoma* (43411).

WALL, WILLIAM A., Magnolia, Ark.: Molecricket, *Gryllotalpa borealis* Burm. (43138).

WALLINGSFORD, W. W., U. S. National Museum: Union veteran badge (43509).

WALTER, GEORGE W., Washington, D. C.: Original manuscript of the "Blackbird," as sung by Mr. W. F. Farish (44072); sheet manuscript of "The Blackbird," as sung by Mrs. G. W. McMillan (44029).

WARBURTON, C. W. (See under Department of Agriculture.)

WAR DEPARTMENT:

Bureau of Insular Affairs (received through Col. C. R. Edwards, Chief): Copy of an "Album of Philippine types—Christians and Moros" (45051).

Bureau of Ordnance (received through Brig. Gen. William Crozier, Chief): 2 United States magazine rifles of the 1903 model, from the Springfield Armory (43132); Gatling gun, wrought-iron Spanish gun, collection of artillery projectiles, also cannon, mortars, rifles, carbines, revolvers, etc., from the Rock Island Arsenal (44541; 44542).

Military Information Division (received through Maj. William D. Beach, General Staff): Breech-loading Ferguson rifle, formerly owned by Gen. John Watts de Peyster (44501).

WARD'S NATURAL SCIENCE ESTABLISHMENT, Rochester, N. Y.: Invertebrates from Swan Island, Maine (gift); 24 bats from the oriental region (44604: purchase).

WARE, ROBERT A., Boston, Mass.: European ferns (43739).

WASHBURNE, CHESTER. (See under Department of Agriculture.)

WASHINGTON STATE COLLEGE, Pullman, Wash. (received through S. Shedd): 30 specimens of building stones (43025: exchange).

WATERS, C. E., Washington, D. C.: 4 ferns (43635: exchange).

WATKINS, W. G., Placerville, Cal.: Fern, *Cheilanthes cooperæ*, from California (43019).

WATSON MACHINE COMPANY, Paterson, N. J.: Plant from East Africa (43585: deposit).

WAUGHTAL, PHILIP, Paradise, Ariz.: 2 skins and skulls of bats (43277).

WEBB, H. G. (See under Passmore Gem Company.)

WEBB, J. B., Standard Lime Company, Kendrick, Fla.: Cast of fossil shell from Kendrick (44162).

WEBER, L. R., Eureka Springs, Ark.: Specimen of needle calcite (43558); 2 specimens of calcite from Arkansas (43719).

WEBSTER, Rev. E. H., Waiuku, Auckland, New Zealand: 2 mollusks (*Paryphanta hochstetteri* Pfr.) from New Zealand (43030).

WEED, W. H., U. S. Geological Survey, Washington, D. C.: Rock specimens from Minas Prieto, Sonora, Mexico (43303: deposit). (See under Interior Department, U. S. Geological Survey.)

WEIGEL, H., Reading, Pa. (received through Department of Agriculture): Plant from Pennsylvania (43197).

WELCH, Mr., Washington, D. C.: 1,000 pounds of granite from Milford, Mass. (43307).

WELLINGTON, NEW ZEALAND, COLONIAL MUSEUM (received through A. Hamilton, curator): 17 mounted birds from New Zealand (44404: exchange).

WERCKLE, C., Cartago, Costa Rica, Central America: 42 plants from Costa Rica (44008; 44185; 44344; 44346; 44479).

WERTZ, E. S. (no address given): Albumen print, made in 1873 (portrait of a lady) (42945).

WEST, Lieut. Col. F., U. S. Army, Oklahoma City, Okla.: Cactus from Texas, received through Brig. Gen. T. E. Wilcox, U. S. A., retired (44200).

WESTERN COLORADO ACADEMY OF SCIENCES, Grand Junction, Colo.: 4 phyllopod crustaceans (43256).

WESTERN UNION TELEGRAPH COMPANY, New York City (received through J. C. Barclay, assistant general manager); presented through the president, R. C. Clowry): Relay used at Fort Sumter at the time of the siege, also home-made sounder, and a pair of "bear-trap" poles (43225).

WETHERILL, W., St. Louis, Mo.: Haida Indian plate; 2 Ute saddle pockets; 2 Winnebago carrying bags and a Zuñi water jar (43879: purchase. L. P. X.).

WHEATON, Mrs. MARIA B., Washington, D. C.: Personal relics of Col. Alexander Macomb Mason Bey, known in Egypt as "Mason Bey," who was in the service of the Khedive for over thirty years, and who had the rank of colonel in the Egyptian army—Egyptian sword; belt; sword-knot; 3 decorations; Turkish coin, and a photograph of "Mason Bey" (10027: loan).

WHEELER, CHARLES S., Washington, D. C.: Bond of North Carolina, late Confederate States (44496: exchange).

WHEELER, D. B., Washington, D. C.: Snake, *Agkistrodon contortrix*, from Langley, Va. (44280).

WHITE, DAVID, U. S. Geological Survey, Washington, D. C.: Lichen from California, collected by F. G. Plummer (43176). (See under G. M. Bradford and I. C. White.)

WHITE, G. E., Anatolia College, Marsovan, Turkey: Anatolian pottery fragments (44514).

WHITE, I. C., Morgantown, W. Va. (received through David White): Fossil plant remains from the provinces of São Paulo and São Catherina, Brazil (43848); eruptive rocks from southern Brazil (43974).

WHITE, WILLIAM C., Warm Springs, Va.: Long-sting, *Magarhyssa atrata* Fabr. (43156).

WHITEMAN, J. W. (See under Department of Agriculture.)

WICKHAM, H. F., Iowa City, Iowa: 2 Hymenoptera (43223).

WILBUR, J. A. (See under Mrs. Laura O. Talbott.)

WILCOX, GLENN A., Tucson, Ariz. (received through Brig. Gen. T. E. Wilcox, U. S. Army, retired): 38 plants from Arizona (44311; 44324; 44365; 44575).

WILCOX, GLOVER B., Los Angeles, Cal.: Harpoon toggle head, from near Nome, Alaska, (43758).

WILCOX, Brig. Gen. T. E., U. S. Army (Retired), Washington, D. C.: 4 plants from

near Vancouver Barracks (43170); 5 plants from Arizona, Nebraska, and Idaho (43248); 7 plants from Alaska, Arizona, and other localities (43272); 8 plants from various localities (43292); tusk of a mammoth and bones of a specimen of *Cervus warreni* (43529); specimen of copper ore (43530); 10 cacti from Grand Canyon (44177); 5 cacti from Oklahoma (44178); cactus from Oklahoma, collected by Mr. Moors (44205); plants, principally cacti, from California and Arizona (44241); plant from Washington (44343). (See also under A. H. Andrews; Capt. R. B. Bryan, U. S. Army; Major D. D. Gaillard, U. S. Army; Dr. R. B. Grubbs, U. S. Army; Lieut. Col. F. West, U. S. Army; G. A. Wilcox; Col. W. D. Wolverton, U. S. Army.)

WILDER, C. M., Riverside, Cal.: 3 plants from California (44538).

WILKINSON, E., Mansfield, Ohio: Mollusk (*Chlorostoma luctuosa* Orb.) (42931); 7 plants from Ohio (43358).

WILLCOX, JOSEPH, Philadelphia, Pa.: 57 mollusks (*Ampullaria* and *Vivipara*) from Florida (43811); 120 specimens of *Ampullaria* from near Lake Okechobee, Florida (44216).

WILLIAMS, D. W., Jackson, Ohio: Catalpa-sphinx caterpillar (43032); 3 case-worms *Thyridopteryx ephemeræfomies* Stephens) (43173).

WILLIAMSON, E. B., Bluffton, Ind.: 24 mollusks, Unionidæ, from Kentucky (43242); 5 specimens of Unionidæ from the Southern States (43337); about 10 crayfishes (44607).

WILLIAMSON, T. M., Erie, Pa.: Photograph of a wheel-lock pistol (43707: exchange).

WILLISON, Mrs. A., Ramsey, Mo.: 2 human teeth (43560).

WILSON, Hon. JAMES. (See under Department of Agriculture.)

WINGATE FRANK, Woodside, Long Island, N. Y.: 2 plants (43002: exchange).

WINTHROP, Governor, Beekman, San Juan, P. R. (received through A. H. Frazier, secretary): Tooth of a fossil shark, probably representing a species of *Carcharodon* (43471).

WISCONSIN, UNIVERSITY OF. (See under Smithsonian Institution.)

WISE, ISADOR (received through F. W. Clarke, U. S. Geological Survey): Specimen of carnotite in supposed fossil wood from Green River, Utah (43475).

WOLFE, Mrs. J. C., Lodge Pole, Nebr.: 19 flint chips (43676).

WOLVERTON, Col. W. D., U. S. Army (Retired), Vancouver, Wash. (received through Brig. Gen. T. E. Wilcox, U. S. Army, Retired): 2 photographs of spruce trees, *Picea breweri* (43776).

WOOD, Maj. Gen. LEONARD, U. S. Army, Zamboanga, Philippine Islands (received through Dr. E. A. Mearns, U. S. Army): Male Nicobar pigeon, *Calænas nicobarica*, from a small island between Mindanao and Sulu (43655); 2 skins of Nicobar pigeon from the Philippine Islands (44318).

WOOD, N. R., U. S. National Museum: About 85 bird lice and a mouse (43347); Kildeer plover, *Oxyechus vociferus* (43394); male Ruffed grouse, *Bonasa umbellus*, with prominent black "ruffs," and pair of Bob-white, *Colinus virginianus* (43732); Weaver's shuttle (44144). (See under W. A. Sands.)

WOODWORTH, F. A., Pacific Grove, Cal.: 2 mollusks, types of recently described species (44058).

WOODWORTH, V. M., Eckley, Oreg.: Specimen of gold-bearing antimonial ore from the eastern side of Mount Bray, Coos County, Oreg., collected by F. W. Crosby (43071).

WOOTON, E. O., Mesilla Park, N. Mex.: 51 cacti from New Mexico (43011; 43111; 43165; 43179: gift); 20 plants from New Mexico (43045; 43096; 43151: gift); 24 cacti from New Mexico (43939: exchange); 2 specimens of prickly pear (*Opuntia*) from New Mexico (43949: exchange). (See under Department of Agriculture.)

WORCESTER, Hon. DEAN C. (See under Manila, Philippine Islands, Government Laboratories.)

WORTHEN, C. K., Warsaw, Ill.: White pelican, *Pelecanus erythrorhynchus* (44612: purchase).

WRIGHT, A. H., Cornell University, Ithaca, N. Y.: Snake from Ithaca (44502).

WRIGHT, W. G., San Bernardino, Cal.: 2 snails, *Limax maximus*, from San Bernardino (43010).

Wulfing, J. M. (See under Smithsonian Institution, Bureau of American Ethnology).

Wurzlow, H., Industry, Tex.: 10 living plants (44369; 44485).

Wyman, Walter C., Chicago, Ill.: George Washington medal (43202).

Yale University Museum, New Haven, Conn. (received through Charles Schuchert): Collection of *Triceratops* material (43074: exchange); series of *Favosites forbesi* from near Waldron, Ind. (43422: gift); plastotype of *Prestwichia signata* Beecher (43500: gift).

Yeates, W. S., State geologist, Atlanta, Ga.: Specimens of prehistoric pottery and implements from a cave near McDaniel, Pickens County, Ga., and a leaf-shaped spearhead of chalcedony from Cherokee County, N. C. (43037).

Young, Miss M. E., Alexandria, Va.: 2 human teeth (third dentition at the age of 70 years) (43480: exchange).

Young, R. T., Boulder, Colo.: Reptiles and batrachians from Colorado (43385).

Zahlbruckner, A. (See under Vienna, Austria, K. K. Naturhistorisches Hofmuseum.)

Zoological Museum. (See under Copenhagen, Denmark.)

A LIST OF THE PUBLICATIONS OF THE U. S. NATIONAL MUSEUM DURING THE FISCAL YEAR 1904-5, INCLUDING PAPERS PUBLISHED ELSEWHERE WHICH RELATE TO THE COLLECTIONS.

PUBLICATIONS OF THE MUSEUM.

ANNUAL REPORT.

Annual Report | of the | Board of Regents | of the | Smithsonian Institution, | showing | the operations, expenditures, and condition | of the Institution | for the | year ending June 30, 1903. | — | Report | of the | U. S. National Museum. [Seal] Washington: | Government Printing Office. | 1905.

8vo., pp. I-XV, 1-646, pls. 69, text figs. 120.

BULLETINS.

The Birds | of | North and Middle America: | A descriptive catalogue | of the | higher groups, genera, species, and subspecies of birds | known to occur in North America, from the | Arctic Lands to the Isthmus of Panama, | the West Indies and other islands | of the Caribbean sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part III. | Family Motacillidæ—The Wagtails and Pipits. | Family Hirundinidæ—The Swallows. | Family Ampelidæ—The Waxwings. | Family Ptilogonatidæ—The Silky Flycatchers. | Family Dulidæ—The Palm Chats. | Family Vireonidæ | The Vireos. | Family Laniidæ—The Shrikes. | Family Corvidæ—The Crows and Jays. | Family Paridæ—The Titmice. | Family Sittidæ — The Nuthatches. | Family Certhiidæ—The Creepers. | Family Troglodytidæ—The Wrens. | Family Cinclidæ—The Dippers. | Family Chamæidæ—The Wren-Tits. | Family Sylviidæ — The Warblers. | — | Washington: | Government Printing Office | 1904. |

Bulletin 50, Part III, 8 vo., pp. I-XX, 1-801, pls. I-XIX.

Smithsonian Institution | United States National Museum. | Contributions | from the | United States National Herbarium | Volume IX | — | The Useful Plants of the Island of Guam | with an introductory account of the | physical features and natural history of the island, of the | character and history of its people, and | of their agriculture. | — | By William Edwin Safford. | [Seal] Washington: | Government Printing Office. | 1905. |

8 vo., pp. 1-416, pls. I-LXX.

PAPERS PUBLISHED IN SEPARATE FORM.

FROM THE REPORT FOR 1903.

Report upon the condition and progress of the U. S. National Museum during the year ending June 30, 1903. By Richard Rathbun. pp. 1-174.

Report on the Department of Anthropology for the year 1902-3. By Otis T. Mason. pp. 51-60.

Report on the Department of Biology for the year 1902-3. By Frederick W. True. pp. 61-82.

Report on the Department of Geology for the year 1902-3. By George P. Merrill. pp. 83-90.

The United States National Museum: An account of the buildings occupied by the national collections. By Richard Rathbun. pp. 177-309, pls. 1-29.

Studies of museum and kindred institutions of New York City, Albany, Buffalo, and Chicago, with notes on some European institutions. By A. B. Meyer. pp. 311-608, pls. 1-40, figs. 1-120.

FROM VOLUME 28, PROCEEDINGS OF THE U. S. NATIONAL MUSEUM.

No. 1382. A treatise on the acarina, or mites. By Nathan Banks. pp. 1–114, figs. 1–201.

No. 1383. Notes on Hawaiian reptiles from the island of Maui. By Richard C. McGregor. pp. 115–118.

No. 1384. Labracinus the proper name for the fish genus Cichlops. By Theodore Gill. p. 119.

No. 1385. Note on the genus Prionurus or Acanthocaulos. By Theodore Gill. p. 121.

No. 1386. Description of a new species of fish (Apogon evermanni) from the Hawaiian Islands, with notes on other species. By David Starr Jordan and John Otterbein Snyder. pp. 123–126.

No. 1387. Descriptions of new genera and species of Hymenoptera from the Philippine Islands. By William H. Ashmead. pp. 127–158, pls. I, II.

No. 1388. On the systematic relations of the ammodytoid fishes. By Theodore Gill. pp. 159–163, figs. 1–4.

No. 1389. The dragonflies (Odonata) of Burma and Lower Siam.—1. Subfamily Calopteryginæ. By Edward Bruce Williamson. pp. 165–187, figs. 1–18.

No. 1390. On the Liparis (Trismegistus) owstoni Jordan and Snyder. By Peter Schmidt. pp. 189–191, figs. 1, 2.

No. 1391. On a collection of fishes made in Korea, by Pierre Louis Jouy, with descriptions of new species. By David Starr Jordan and Edwin Chapin Starks. pp. 193–212, figs. 1–11.

No. 1392. The Mount Vernon meteorite. By Wirt Tassin. pp. 213–217, pls. III, IV.

No. 1393. The scorpænoid fish, Neosebastes entaxis, as the type of a distinct genus. By Theodore Gill. pp. 219, 220, figs. 1, 2.

No. 1394. Note on the genera of synanceine and pelorine fishes. By Theodore Gill. pp. 221–225, fig. 1.

No. 1395. Cambrian Brachiopoda, with descriptions of new genera and species. By Charles D. Walcott. pp. 227–337.

No. 1396. On the generic characteristics of Prionotus stearnsii. By Theodore Gill. pp. 339–342, figs. 1–4.

No. 1397. Three new frogs and one new gecko from the Philippine Islands. By Leonhard Stejneger. pp. 343–348.

No. 1398. Descriptions of new species of tortricid moths, from North Carolina, with notes. By William Dunham Kearfott. pp. 349–364.

No. 1399. Note on the salmon and trout of Japan. By David Starr Jordan. pp. 365, 366.

No. 1400. Descriptions of a new genus of Isopoda belonging to the family Tanaidæ, and of a new species of Tanais, both from Monterey Bay, California. By Harriet Richardson. pp. 367–370, figs. 1–13.

No. 1401. A critical review of the literature on the simple genera of the Madreporaria Fungida, with a tentative classification. By T. Wayland Vaughan. pp. 371–424.

No. 1402. Descriptions of new genera and species of mammals from the Philippine Islands. By Edgar A. Mearns. pp. 425–460.

No. 1403. On a collection of Orthoptera from southern Arizona, with descriptions of new species. By Andrew Nelson Caudell. pp. 461–477, figs. 1–6.

No. 1404. North American parasitic copepods belonging to the family Caligidæ. Part I.—The Caligidæ. By Charles Branch Wilson. pp. 479–672, pls. V–XXIX, figs. 1–50.

No. 1405. Notes on mammals collected and observed in the Northern Mackenzie River district, Northwest Territories of Canada, with remarks on explorers and explorations of the far North. By R. MacFarlane. pp. 673–764, pls. XXX–XXXIV, figs. 1, 2.

No. 1406. Description of a new toad from Cuba. By Leonhard Stejneger. pp. 765–767, figs. 1–6.

FROM BULLETIN 39.

Part R. Directions for collecting information and specimens for physical anthropology. By Aleš Hrdlička. pp. [1]–[25], pls. I–VIII.

FROM VOLUME 8 OF THE CONTRIBUTIONS FROM THE NATIONAL HERBARIUM.

Part 4. Studies of Mexican and Central American plants. By J. N. Rose. pp. 281–339, pls. 63–72, figs. 14–19.

CLASSIFIED LIST OF PAPERS BY OFFICERS AND COLLABORATORS OF THE MUSEUM, BASED WHOLLY OR IN PART UPON THE NATIONAL COLLECTIONS.

GEOLOGY AND MINERALOGY.

MERRILL, GEORGE P. On the origin of veins of asbestiform serpentine.

Bull. Geol. Soc. America, XVI, March 10, 1905, pp. 131–136, pls. 33, 34.

Describes the mode of occurrence of the fibrous material, and ascribes the formation of the vein cavities to shrinkage.

——— Gold and its associations.

Engineering and Mining Journal, LXXIX, No. 21, May 25, 1905, p. 992.

Gives a list and brief description of collection in the Department of Geology, National Museum, showing the association of gold with other minerals.

——— Stone.

Report on Mines and Quarries, Twelfth Census, 1902 (Washington, 1905), pp. 785–835, 15 plates.

The paper gives statistics and a summary of the stone industry for 1902.

TASSIN, WIRT. The Mount Vernon meteorite.

Proc. U. S. Nat. Mus., XXVIII, No. 1392, Feb. 23, 1905, pp. 213–217, pls. 3, 4.

A description of the mass with the separation and analysis of its mineral constituents, together with its approximate percentage composition.

PALEONTOLOGY.

BASSLER, R. S. (See under E. O. Ulrich.)

DALL, WILLIAM HEALEY. The relations of the Miocene of Maryland to that of other regions and to the recent fauna.

Maryland Geological Survey, Miocene, Oct., 1904, pp. CXXXIX–CLV.

DALL, WILLIAM HEALEY—Continued.

Reviews the relations of the beds in Maryland with those of Virginia and of Europe, and concludes that the nearest allied European series is the Miocene of North Germany. The American material studied is largely in the National Museum.

——— Notes on the fossils of the Bahamas.

Science (new series), XXI, No. 532, Mar. 10, 1905, pp. 390, 391.

Abstract of address on the subject before the Geological Society of Washington Feb. 8, 1905.

——— *Volupia rugosa* Defrance.

Paleontologia Universalis, Laval, 1905.

A summary account, with figures, of the fossil shell above mentioned, of which cotypes were given to the Museum in exchange for the labor involved in preparing the above notice.

GILL, THEODORE. Extinct pediculate and other fishes.

Science (new series), XX, No. 520, Dec. 16, 1904, pp. 844, 845.

The Eocene Mount Bolca *Histionotus bassani* of Zigno has been recently renamed *Histionotophorus bassani* by C. R. Eastman and referred to the family Lophiidæ. It is now contended that the extinct fish was nearly related to, and possibly congeneric with, the *Pterophryne histrio*, and consequently was a member of the family *Antennariidæ*.

Another Mount Bolca fish, named *Crenilabrus* or *Symphodus szajnochæ*, it is claimed, does not even belong to the same family as *Crenilabrus* or *Symphodus*. Its affinities appear to be rather with the Berychids, and a new genus (*Bradyurus*) is proposed for it.

KNOWLTON, FRANK HALL. Fossil plants from Kukak Bay.

Harriman Alaska Expedition, IV, 1904, pp. 149–162, pls. XXII–XXXIII.

The collection from Kukak Bay on the Alaska Peninsula, a little north of west from Kadiak Island, contained twenty-seven forms, nine of which are described by Mr. Knowlton as new to science. The beds from which the specimens were obtained are referred to the Upper Eocene.

SCHUCHERT, CHARLES. On Siluric and Devonic Cystidea and *Camarocrinus*.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, Nov. 4, 1904, pp. 201–272, pls. 34–44, text, figs. 21–44.

This important article is by far the most extensive paper on American Cystidea yet published and is practically a monograph of the Silurian and Devonian representatives of this class. Notes on the occurrence of these fossils, their preparation for study, and on the geologic section at the chief locality, near Keyser, W. Va., precedes the description of genera and species. Under the class Carpoidea the genus *Anomalocystites* and the two species *A. cornutus* and *A.? disparilis* are discussed and figured. The Cystoidea proper are represented by 11 genera and 26 species, all of which are described and figured in detail. Of these, two genera, *Tetracystis* and *Trimerocystis*, are new, and 12 of the species are described for the first time.

The article concludes with a discussion of the peculiar genus *Camarocrinus* in which the author comes to the conclusion that *Camarocrinus* "appears to be the float of an unknown crinoid that was held together after the death of the individual by the firmly interlocked double walls of the exterior and interior, while the crown and stalk dropped away." Three species and one new variety of *Camarocrinus* are described and figured. With the exception of two or three specimens, all of the material upon which this article is based is in the collections of the U. S. National Museum.

SMITH, GEORGE OTIS. (See under David White.)

TRUE, FREDERICK W. Diagnosis of a new genus and species of fossil sea lion from the Miocene of Oregon.

Smithsonian Misc. Colls., XLVIII, Quar. issue, III, pt. 1, May 13, 1905, pp. 47–49.

ULRICH, E. O. Miocene Hydrozoa of Maryland.

Maryland Geol. Surv., Miocene, 1904, pp. 433–438, pl. 121.

In this chapter of the Miocene volume of the Maryland Geological Survey, the new genus *Millcaster* is instituted and the following new species are described: *Milleaster incrustans*, *M.? subramosa*, and *Hydractinia multispinosa*.

ULRICH, E. O., and BASSLER, R. S. A revision of the Paleozoic Bryozoa. Part II. On the genera and species of Trepostomata.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 1, No. 1470, Aug. 6, 1904, pp. 15–55, pls. 6–14.

As indicated by the title, this is a revision of the Paleozoic trepostomatous Bryozoa, a very abundant and important group of the Paleozoic fossils. Two new divisions are instituted for this order, namely, the Amalgamata and Integrata, based on the minute structure of the zoœcial walls. Whenever necessary the old genera are redefined or limited, while the following new genera are proposed: *Orbignyella*, *Cyphotrypa*, *Stigmatella*, *Rhombotrypa*, *Calloporina*, and *Anaphragma*. In order to illustrate the generic characters or to bring out new features otherwise, 35 species are described or figured.

——— Miocene Ostracoda of Maryland.

Maryland Geol. Surv., Miocene, 1904, pp. 98–139, pls. 35–38.

In this chapter of the Miocene volume issued by the Maryland Geological Survey, the Ostracoda of this State are treated monographically. Forty new species and varieties are described and figured, distributed as follows: *Cythere*, 24 species and 6 varieties; *Cythereis*, 1 species and 1 variety; *Cytheridea*, 2 species; *Cytheredeis*, 5 species, and *Cytheropteron*, 1 species.

——— Miocene Bryozoa of Maryland.

Maryland Geol. Surv., Miocene, 1904, pp 404–429, pls. 110–118.

This chapter treats of the Miocene Bryozoa of Maryland. Twenty-nine species of Chilostomata and 3 of Cyclostomata are described and figured.

VAUGHAN, T. WAYLAND. Anthozoa.

Maryland Geol. Surv., Miocene, 1904, pp. 438–447, pls. CXXII–CXXIX.

Gives an account of the Miocene Madreporaria of Maryland and Virginia. *Astrangia conradi* is described as new. This paper contains several glaring misprints, the worst of which is the substitution of the family name Cyathophyllidæ for Caryophyllidæ. In the explanation of pl. CXXIII, the word *abnormal* has been changed to *normal*.

——— A critical review of the literature on the simple genera of the Madreporaria Fungida, with a tentative classification.

Proc. U. S. Nat. Mus., XXVIII, No. 1401, May 10, 1905, pp. 371–424.

Reviews the previous work on the simple Fungid corals and proposes a tentative classification. Four families, Fungiidae, Micrabaciidae (new), Leptophylliidae (new name), and Anabraciidae are recognized. The data concerning 12 genera were insufficient for referring them to any of the established fam-

WAUGHAN, T. WAYLAND—Continued.

ilies. The original description of each genus is given, wherever possible the type species was determined, and a historic sketch of the increase in the knowledge of the genus is given. *Antilloseris* (p. 390), type species *Turbinoseris cocænica* Duncan, and *Physoseris* (p. 396), type species *Trochosmilia insignis* Duncan, are described as new.

WALCOTT, CHARLES D. Cambrian Brachiopoda with descriptions of new genera and species.

Proc. U. S. Nat. Mus., XXVIII, No, 1395, Feb. 17, 1905, pp. 227–337.

In this paper Doctor Walcott continues his studies of the Cambrian Brachiopoda. He defines 29 genera and subgenera of which the following are new: *Otusia, Nisusia, Jamesella, Eostrophomena, Orusia, Finkelnburgia, Loperia, Swantonia, Iphidella, Rustella, Curticia, Quebecia*, and *Schuchertina*. Descriptions of many new species and varieties are given, and a number of old species are redescribed.

WHITE, DAVID. The seeds of *Aneimites*.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 3, No. 1550, Dec. 10, 1904, pp. 322–331, pls. XLVII, XLVIII.

This paper contains descriptions and figures of a new type of seed—*Wardia*—found by the author in organic connection with the fronds of a new species of *Aneimites* (including *Adiantites* of author's) described as *A. fertilis*. Associated with the seeds and fragments of fronds, though not yet seen in actual union with the latter, are small fragments of attenuated pedicils bearing very delicate, minute, dichotomous appendages, at the apices of which are thickened bodies regarded as possible pollen-bearing organs of the *Aneimites*. *Aneimites fertilis*, which is the third of the Paleozoic filicoid genera is found to be seed-bearing and the second to be discovered with seed and frond united, represents a type of frond not previously suspected of being other than a fern which, in fact, it exactly resembles. The discovery of the seeds shows it to be very distinct from the ferns and necessitates its reference to the Cycadofilices or Pteridosperms, where it is placed by the writer in an order designated as the Lyginodendrales. The type-specimens are contained in the collections of the U. S. National Museum.

——— Fossil plants of the group Cycadofilices.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 3, March 2, 1905, pp. 377–390, pl. LIII–LV.

This paper summarizes the principal characters of the genera of Paleozoic fossil plants which within the last few years have been segregated by most paleobotanists as a group

WHITE, DAVID—Continued.

called the "Cycadofilices." The fossils, consisting for the most part of silicified stems and petioles, exhibit structures combining characters of ferns, gymnosperms, and more particularly the Cycads. The aspect of the frond and the details of the pinnules are essentially in agreement with those of ferns. The discovery recently of seeds in connection with two of these plants led to the recognition of the Cycadofilices as constituting a phylum known as the Pteridospermaphyta, most of the types being included in the Pteridospermeæ. The writer suggests the additional inclusion in the Pteridosperms of the genera *Triphyllopteris, Eremopteris, Mariopteris*, and most of the species included by Lesquereux in the genus *Pseudopecopteris*. The Cycadofilices or Pteridosperms are regarded as intermediate between ferns and cycads, but it is not urged that any of the fossil genera included therein represent links in the lineal descent of the modern Gymnosperms. On account of the great abundance in the Carboniferous of Pteridospermic representatives which, in fact, characterize it, it is suggested that, instead of being called the epoch of cryptograms, the Carboniferous be designated the epoch of the Pteridosperms.

——— Flora of the Brazilian coal measures.

Science (new series), XXI, 1905, p. 700.

Notice of paleobotanical material collected by Dr. I. C. White from two localities in the states of São Paulo and Santa Catherina, Brazil. The evidence presented by the plants confirms the inclusion of southern Brazil in the Indo-Australo-African or Glossopteris province, and tends to fully corroborate the conclusion reached by M. Zeiller that the Brazilian coalfields are probably of latest Coal Measures age, or possibly Permian, their place being apparently in the Karharbari-Newcastle stage.

WHITE, DAVID, and SMITH, GEORGE OTIS. The geology of the Perry Basin in southeastern Maine.

U. S. Geol. Surv., Professional Paper No. 35, 1905, pp. 1–107, pls. I–VI.

The Perry formation, consisting of brownish conglomerates, lying in irregular layers, unconformably upon earlier formations, is shown by its fossil plants to be Upper Devonian age, referable in all probability to the Chemung stage. The belief in the existence of coal in the formation, although maintained for nearly seventy years, is not supported by the geologic or paleontologic evidence, and there is no basis for the hope of finding usable coal in any of the concealed parts of the Perry formation or the underlying rocks. Reference is made to several specimens in the Lacoe collection as furnishing unpublished characters in species of *Archæopteris*.

WOOD, ELVIRA. On new and old Middle Devonic crinoids.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 1, No. 1471, Aug. 6, 1904, pp. 56–84, text figs. 1–9, pls. 15, 16.

This paper is devoted to a study of the specimens of Middle Devonian crinoids in the collections of the U. S. National Museum and Massachusetts Institute of Technology. The new genera *Tripleurocrinus* and *Tylocrinus* are instituted with *T. levis*, new species, and *T. novus*, new species, as the respective type species. Three new species of *Megistocrinus* are described and figured, while remarks upon known forms are given. Under the genus *Dolatocrinus* two new species are described, comments upon 16 other species of the genus made, and the new name *Dolatocrinus wachsmuthi* is proposed in place of *Dolatocrinus lyoni* Wachsmuth and Springer, the latter being preoccupied. In addition, comments upon 6 other genera and 7 species, notes upon calyx abnormalities, and a table showing the distribution of Devonian crinoids are given. All of the figured specimens are the property of the National Museum.

BOTANY.

BRITTON, N. L. (See under Joseph N. Rose.)

COVILLE, FREDERICK V. Desert plants as a source of drinking water.

Rep. Smithsonian Inst., 1903 (1904), pp. 499–505, pls. I, II, figs. 1–4.

GREENE, EDWARD L. The Neckerian cactaceous genera.

Leaflets, I, Aug. 25, 1904, pp. 50–52.

An identification of the 4 obscure cactaceous genera of Necker's Elementa: (1) *Cactus*=*Mamillaria* and *Melocactus;* (2) *Cirinosum*=*Cereus;* (3) *Carpophyllus*=*Pereskia;* (4) *Phyllanthus*=*Opuntia* and *Phyllanthus.*

—— North American species of *Amarella.*

Leaflets, I, Aug. 25, 1904, pp. 53–55.

Recognition of Gilibert's *Amarella* as distinct from *Gentiana;* the known North American species transferred, and the following new ones proposed: *A. copelandi, californica, lemberti, macounii, conferta, scopulorum, revoluta, cobrensis.*

——— Seven new Apocynums.

Leaflets, I, Aug. 25, 1904, pp. 56–59.

Description of *A. divergens* and *A. andrewsii* from Connecticut; *A. calophyllum, A. tomentellum, A. oliganthum, A. myrianthum* from the Great Basin; and *A. palustre* from California.

——— Affinities of the Cichoriaceæ.

Leaflets, I, Aug. 25, 1904, pp. 59–62.

Discussion of the intimate natural relation between the Cichoriaceæ and Lobeliaceæ.

GREENE, EDWARD L. Some western buckthorns.

Leaflets, I, Aug. 25, 1904, pp. 63, 64.

Rhamnus fasciculata, R. ursina, R. castorea, R. cuspidata, R. obtusissima, new species from New Mexico, Arizona, and California.

——— A name explained.

Torreya, IV, Nov. 21, 1904, pp. 173, 174.

Derivation of *Cholisma* Raf., erroneously printed *Xolisma.*

——— New species of *Ceanothus.*

Leaflets, I, Nov. 24, 1904 pp. 65–68.

Ceanothus puberulus, C. myrianthus, C. mogollonicus, C. pedunculoris, and *C. macrothyrsus*, new species from New Mexico, California, and Oregon.

——— The genus *Pneumonanthe.*

Leaflets, I, Nov. 24, 1904, pp. 68–71.

The author discusses *Pneumonanthe* as distinct from *Gentiana*, and transfers to it such North American species as had not been named under *Pneumonanthe.*

——— New plants from middle California.

Leaflets, I, Nov. 24, 1904, pp. 73–80.

New species of *Lupinus, Lotus, Sidalcea, Silene, Aquilegia, Delphinium, Bistorta, Eriogonum, Swertia, Castilleja, Pentstemon, Apocynum, Cryptanthe, Galium, Chrysothamnus*, 21 in all.

——— Certain west American Cruciferæ.

Leaflets, I, Dec. 21, 1904, pp. 81–90.

Breaking up the large Californian group of so-called *Streptanthi* into the following new genera: *Euclisia, Pleiocardia, Mitophyllum, Microsemia, Mesoreanthus.* Seven new species are proposed and described in the several new genera.

——— *Laothoe.*

Leaflets, I, Dec. 31, 1904, p. 90.

Restoration of Rafinesque's name as long prior to the *Chlorogalum* of Kunth. The 6 known species renamed under *Laothoe.*

——— On certain Gentianaceæ.

Leaflets, I, Dec. 31, 1904, pp. 91–94.

Swertia parallela, new species. Restoration of Rafinesque's *Aloitis* as a good segregate from *Gentiana.* Four new species are defined.

——— Two new batrachia.

Leaflets, I, Dec. 31, 1904, p. 95.

Batrachium bakeri and *B. pedunculare*, both from California.

——— Two new Sophiæ.

Leaflets, I, Dec. 31, 1904, p. 96.

Sophia obtusa and *S. serrata*, both from New Mexico.

——— Diagnoses Aragallorum.

Proc. Biol. Soc., Wash., XVIII, Jan. 20, 1905, pp. 11–18.

Descriptions of 19 new species of *Aragallus*, the greater proportion of them from the

GREENE, EDWARD L.—Continued.

Texano-Neo-Mexican region, a few from the district of Wyoming and Dakota, several from western British America, and one each from the shores of Bering Sea and Hudson's Bay.

——— Some west American red cherries.

Proc. Biol. Soc., Wash., XVIII, Feb. 21, 1905, pp. 55–60.

Ten new species of *Cerasus*, 7 of them from California, 1 from each of the following: New Mexico, Oregon, Montana.

——— Revision of *Eschscholtzia*.

Pittonia, V, June 10, 1905, pp. 205–292.

Sketch of the history of the genus, a general classification of the species, with full descriptions of all known at this date.

——— New papaveraceous genus.

Pittonia, V, June 10, 1905, pp. 293, 294.

An account of the new genus *Petromecon* and of the 2 known species, both endemic on the Mexican Island of Guadalupe.

——— A study of *Dendromecon*.

Pittonia, V, June 10, 1905, pp. 295–305.

Revision of the genus, with descriptions in full of the 17 species, 14 of which are proposed as new.

——— Suggestions regarding *Sanguinaria*.

Pittonia, V, June 10, 1905, pp. 306–308.

Proposed segregation of the *S. canadensis* of recent books into 6 species: 2 for the region of the Eastern States: 3 for the Southern States, and 1 for the upper Mississippi Valley. Three of the 6 are described provisionally as new.

——— The earliest local flora.

Plant World, VIII, June 10, 1905, pp. 115–121.

Sketch of Thalius's Silva Hercynia, published at Frankfort on the Main, in the year 1588. The genera now known as *Trientalis* and *Elcocharis* were first published in this book.

——— Some *Ptelea* segregates.

Torreya, V, June 27, 1905, pp. 99–100.

Three new segregates from *P. trifoliata*, namely, *P. carolina*, *P. obcordata* and *P. mesochora;* the first from North Carolina, the second from Florida, the third from the upper Mississippi and region of the Great Lakes.

HOUSE, HOMER DOLLIVER. Some rare ferns of central New Jersey.

Fern Bulletin, XII, Aug., 1904, pp. 80–82.

——— A new violet from New England.

Rhodora, VI, Nov., 1904, pp. 226–227, pl. 59.

Description of a new species, *Viola novae-angliae*.

——— The nomenclature of *Calonyction bona-nox*.

Bull. Torrey Botan. Club, XXXII, 1904, pp. 589–592.

HOUSE, HOMER DOLLIVER—Continued.

Reviews the pre-Linnæan history of this species, which proves to include at least the 2 species of Linnæus, *Ipomoea alba* and *Convolvulus aculcatus*, combined by him under the name of *Ipomoea bona-nox*, in 1762. The new combinations *Calonyction aculeatum* (L.) House, and *C. album* (L.) House are made.

——— Two new species of *Convolvulus* from the western United States.

Bull. Torrey Botan. Club, XXXII, 1905, pp. 139, 140.

Describes *Convolvulus ambigens* and *Convolvulus interior* as new species from Colorado.

——— Notes on New Jersey violets.

Bull. Torrey Botan. Club, XXXII, 1905, pp. 253–260, pls. 16–18.

Describes a new species, *Viola stoneana* and a new hybrid *Viola brittoniana* × *cucullata*.

MANN, ALBERT. Diatoms, the jewels of the plant-world.

Smithsonian Misc. Colls., XLVIII, Quar. issue, III, pt. 1, No. 1578, May 23, 1905, pp. 50–58, 4 pls., 9 figs.

MAXON, WILLIAM R. Notes on American ferns.

Fern Bull., XII, Oct., 1904, pp. 101–103.

A comparison of specimens with the types of *Polypodium vulgare occidentale* Hook. (1840) in the British Museum, indicates that the fern ranging from California to Alaska and known under this name and as *P. falcatum* Kellogg (1854) is an extremely variable species. The series should bear the name *Polypodium occidentale* (Hook.) Maxon.

——— A new *Asplenium* from Mexico.

Bull. Torrey Botan. Club, XXXI, Dec., 1904, pp. 657, 658, 1 text fig.

Asplenium modestum, new species, is described from Chihuahua, Mexico. It is regarded as an aberrant member of the group of *A. lanceolatum*.

——— On the names of three Jamaican species of *Polypodium*.

Bull. Torrey Botan. Club, XXXII, Feb., 1905, pp. 73–75.

Notes upon the long-continued misidentification of *Polypodium myosuroides* Swartz (1788). The name is restored to its original application and a related species receives the name *Polypodium delitescens* Maxon. The new name *Polypodium induens* Maxon is proposed for *P. saxicolum* Baker (1877), not *P. saxicola* Swartz (1817).

——— A new species of fern of the genus *Polypodium* from Jamaica.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, No. 1562, Apr. 5, 1905, pp. 410, 411, pl. 57.

Polypodium nesioticum Maxon, a rare simple-leaved new species from Jamaica, is described and figured. It is compared in detail with several allied species.

MAXON, WILLIAM R. A new *Botrychium* from Jamaica.

Bull. Torrey Botan. Club, XXXII, Apr., 1905, pp. 219–222, pl. 6.

A description of *Botrychium underwoodianum* Maxon, a new species, from Jamaica, allied to the Jamaican *B. jenmian* and the Mexican *B. decompositum*.

—— *Adenoderris*, a valid genus of ferns.

Botan. Gaz., XXXIX, May, 1905, pp. 366–369, 2 text figs.

This genus proposed by John Smith in 1875 is regarded as quite distinct from *Polystichum* and the diagnostic characters of both genera are discussed. The genus comprises two species, which are here described and figured, viz: *A. viscidula* (Mett.) Maxon, and *A. sororia* Maxon, new species.

ROSE, JOSEPH N. *Lenophyllum*, a new genus of Crassulaceæ.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, No. 1479, Oct. 10, 1904, pp. 159–162, pl. 20, figs. 18, 19.

—— Studies of Mexican and Central American plants, No. 4.

Contrib. U. S. Nat. Herbarium, VIII, No. 4, Apr., 1905, pp. 281–399, pls. 63–72, figs. 14 to 19.

Descriptions of many new species are given.

——— and BRITTON, N. L. Crassulaceæ [of North America].

North Am. Flora, XXVIII, pt. 1, May, 1905, pp. 7–74.

Contains descriptions of 4 new genera and many new species.

SAFFORD, WILLIAM EDWIN. Smithsonian Institution. | United States National Museum. | Contributions | from the | United States National Herbarium. | Volume IX | ——— | The Useful Plants of the Island of Guam | with an introductory account of the | physical features and natural history of the island, of the | character and history of its people, and | of their agriculture. | ——— | By William Edwin Safford. | [Seal] | Washington: | Government Printing Office. | 1905. |

8vo., pp. 1–416, pls. I–LXX.

SMITH, JOHN DONNELL. A description of *Dracæna americana* Donn. Sm., n. sp.

Trees and Shrubs, by C. L. Sargent, I., 1905, p. 207, pl. XCVIII.

ZOOLOGY.

MOLLUSKS.

BARTSCH, PAUL. A new *Ashmunella* from New Mexico.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 1, No. 1469, Aug. 6, 1904, pp. 13, 14.

Ashmunella townsendi is described from the neighborhood of Ruidoso, Sierra Blanca, Mescalero Indian Reservation, Lincoln County, New Mexico.

—— Notes on the genus *Sonorella*, with descriptions of new species.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, No. 1481, Oct. 10, 1904, pp. 187–200, pls. XXVIII–XXXIII.

In this paper the genus has been divided into four groups based upon nuclear characters, which are illustrated by enlarged photographic reproductions. Nine new forms are described: *S. ashmuni, nelsoni, goldmani, merrilli, dalli, mearnsi, fisheri, baileyi*, and *baileyi orcutti*. All species described up to date, except *S. rowelli* and *S. lohri lioderma*, are figured.

——— A new species of *Amphidromus*.

Smithsonian Misc. Colls., XLVII, Quar issue, II, pt. 2, No. 1486, Nov. 9, 1904, pp. 292–293, pl. XLVI.

Amphidromus gossi is described from Mount Kina Baloo, North Borneo.

——— A new Philippine land shell.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, No. 1561, Mar. 28, 1905, p. 409, pl. LVI.

Helicostyla mearnsi, is described from Mount Apo, Mindanao.

DALL, WILLIAM HEALEY. On the relations of the land and freshwater mollusk-fauna of Alaska and Eastern Siberia.

Popular Science Monthly, Feb., 1903, pp. 362–366.

Discusses the relations of the fauna, the subdivisions of the fauna in Alaska and the relative contributions to the Alaskan assembly of the different adjacent faunal regions.

——— An historical and systematic review of the frogshells and tritons.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 1, No. 1475, Aug. 6, 1904, pp. 114–144.

A review of the literature in regard to the Lamarckian genera *Ranella* and *Triton* and their subdivisions from the beginning. The

DALL, WILLIAM HEALEY—Continued.

following new group-names are proposed: *Craspedotriton* (*convolutus* Brod.); *Marsupina* (*crassa* Dillwyn); *Chasmotheca* (*foliata* Broderip), in the Ranellidæ; and in the Septidæ: *Eugyrina* (new name for *Gyrina* Schumacher); *Paralagena* (for *Lagena* Mörch); *Tritonocauda* (*caudatus* Gmelin); *Turritriton* (*gibbosus* Broderip); *Tritoniscus* (*loroisii* Petit); and in the Colubrariidæ: *Maculotriton* (*bracteatus* Hinds); *Monostiolum* (*swiftii* Tryon); *Caducifer* (*truncatus* Hinds); *Tæniola* (*decollatus* Sowerby), and *Phrygiomurex* (*sculptilis* Reeve).

——— Note on *Lucina* (*Miltha*) *childreni* Gray, and on a new species from the Gulf of California.

Nautilus, XVIII, No. 10, Feb., 1905, pp. 110–112.

In this note it is shown that *L. childreni* is a Brazilian species exclusively, and for the species of the Gulf of California, wrongly called *childreni* by Carpenter, the name of *L.* (*Miltha*) *xantusi* is proposed. The specimens are in the National Museum.

—— New species of mollusks from California.

Nautilus, XVIII, No. 11, Mar., 1905, pp. 123–125.

The following new species are described: *Leda amblia*, *Mangelia perattenuata*, *Admete woodworthi*, *Erato albescens*, and *Scissurella* (*Schizotrochus*) *kelseyi*, all from California. The specimens are in the National collection.

——— An arrangement of the American Cyclostomatidæ with a revision of the nomenclature.

Proc. Malacolog. Soc. London, VI, March, 1905, pp. 203–210.

The whole group is reviewed, diagnoses given for the subdivisions, the subgenus *Parachrondria* is proposed for *Cistula* Sowerby, not Say, and the genus *Opisthosiphon* for *Chondropoma bahamense* Shuttleworth and its allies. These are shown to have an accessory opening to the whorl in the shape of a small tube behind the posterior angle of the aperture. The material upon which the conclusions rest is in the National Museum.

——— Report on the land and fresh-water shells collected in the Bahamas in 1904 by Mr. Owen Bryant and others.

Smithsonian Misc. Colls., XLVII, Quar. issue, pl. II, pt. 4, April 27, 1905, pp. 433–452, pls. LVIII, LIX.

Mr. Bryant's collection is catalogued, and notes and descriptions of some new forms, either collected by him or from the collection of the National Museum are given. The new species are as follows: *Cepolis smirna*, *C. androsi*, *Cerion glans obesum*, *Cerion watlingense*, *C. inconspicuum*, and variety *lacunorum*, *C. canonicum*, *C. variabile* with varieties *pupilla* and *Saurodon*, *C. brunneum*, *C. plegmatum*, *C. northropi*, *C. oweni* and varieties *reticulatum*, *incisum* and *vermiculum*, *Rhytidopoma euploca*, and *Veronicella schivelyæ* var. *bahamensis*. The new forms are figured, numerous species added to the known Bahaman fauna, and the habit of forming an epiphragm by *Planorbis* during the dry season, is noted.

——— Note on the genus *Aporema* Dall.

Nautilus, XVIII, No. 12, April, 1905, p. 143.

Aporema proving to be preoccupied in Insects by Scudder, the new name *Panacea* is proposed to take its place, with the same type *Pholadomya arata* Verrill.

——— Note on *Trichodina* Ancey.

Nautilus, XVIII, No. 12, April, 1905, p. 143.

Trichodina Ancey, 1888, for an Achatinoid landshell being preoccupied by *Trichodina* Ehrenberg, 1830, the new name *Petriola* is proposed for the former.

——— Fossils of the Bahama Islands, with a list of the nonmarine mollusks.

The Bahama Islands, New York (Macmillan & Co.), April, 1905, pp. 23–47; pls. XI–XIII.

This paper, also issued separately, treats of the fossils of the Bahamas collected by the expedition sent out by the Geographical Society of Baltimore, giving a list of stations with the fossils collected at each, descriptions of some new landshells, fossil and recent, a catalogue of the nonmarine fauna, fossil and living, a list of the marine fossils obtained, and a short account of the fauna of the "salt pans" or lagoons. Some characteristic marine fossils and the new species of landshells are figured. The following are described as new: *Cepolis agassizii*, *C. inaguana* var. *subandrosi*, *C. pharcida*, *Cerion elcutheræ* var. *drupium*, *Cepolis exumana*, *C. gregoriana*, *C. duclosiana* var. *columbiana*, and *C. inaguana*. *Phacoides pensylvanicus* L., *Codakia orbicularis* L., *Tellina radiata* L., *Arca occidentalis* Philippi, *A. reticulata* Gmelin, *Cerion agassizii* Dall, and *Helicina rawsoni* Pfeiffer, are also figured.

Cotypes of the material described are in the National Museum.

——— Two undescribed California shells.

Nautilus, XIX, No. 2, June, 1905, pp. 14, 15.

Murex (*Phyllonotus*) *santarosana* and *Alaba oldroydi* from southern California are described as new, the types being in the National Museum.

WHITE, CHARLES A. The ancestral origin of the North American Unionidæ, or fresh-water mussels.

Smithsonian Misc. Colls., XLVIII, Quar. issue, pt. 1, 1905, pp. 75–88, pls. 26–31.

WHITE, CHARLES A.—Continued.

In this article the origin of the Unionidæ is traced and an explanation for their distribution is given. The paper is illustrated by 6 plates, the originals of the figures being the property of the U. S. National Museum. *Unio stantoni*, new species, of the Laramie Group, is proposed for a specimen formerly referred to *Unio danæ* Meek and Hayden.

CRUSTACEANS.

DALL, WILLIAM H. Harriman Alaska Expedition. Crustacea, volume X.

Science (new series), XX, No. 510, Oct. 7, 1904, p. 463.

Notice of the volume, including some account of its contents.

RATHBUN, MARY J. Descriptions of three new species of American crabs.

Proc. Biol. Soc. Wash., XVII, Dec. 27, 1904, pp. 161, 162.

Three new species of crabs from Central America and Chile in the collection of the Zoological Museum at Copenhagen are described—*Uca œrstedi*, *Pinnaxodes meinerti*, *Lophopanopeus nicaraguensis*.

A cotype of the first-named species is in the U. S. National Museum.

——— Some changes in crustacean nomenclature.

Proc. Biol. Soc. Wash., XVII, Dec. 27, 1904, pp. 169–172.

These changes are necessitated by the discovery that several genera of Weber's "Nomenclator entomologicus," 1795, have been ignored by subsequent authors. *Alpheus* Weber and *Ligia* Weber are synonyms of *Cancer* Linnæus; *Crangon* Weber takes precedence of *Alpheus* Fabricius; *Homarus* Weber may be used in its present sense, for the lobsters; *Parthenope* Weber is equivalent to the later *Lambrus* of Leach; *Daldorfia* is proposed as a new generic name for *Parthenope* Fabricius; *Euryala* Weber= *Corystes* Latreille 1802; *Idotea* Weber is a synonym of *Emerita* Gronovius.

——— Les Crabes d'Eau douce (Potamonidæ). 1re partie.

Nouv. Arch. Mus. d'Hist. Nat., Paris, (4) VI, Dec., 1904, pp. 225–312, pls. 9–18, text figs. 1–37.

A monographic account of the Potamonidæ, based chiefly on the collection in the Museum at Paris, but embracing also those in 8 other large museums.

Gives first some general considerations on the systematic position of the family, notes on the development, ethology, uses, etc., with a table of distribution.

The descriptive part deals with the 77 species of typical *Potamon* of which 29 are new: the plates, however, represent also the subgenera *Potamonautes*, *Geothelphusa*, *Perithelphusa* and a portion of *Parathelphusa*, including many undescribed forms.

——— Why not *Paramaya*?

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, p. 73.

A plea for the use of a "plate name," *Paramaya* de Haan 1837, instead of *Mamaia* Stebbing 1904.

RICHARDSON, HARRIET. A reply to certain criticisms of Professor Giard respecting the Bopyrids.

Comptes Rendus Soc. Biol. Paris, LVI, No. 19, June 3, 1904, pp. 856–858; *Science* (new series), XX, No. 497, July 8, 1904 pp. 51–53.

A reply to critical review by Prof. Alfred Giard in Comptes Rendus Société de Biologie, LVI, Apr. 22, 1904, pp. 591–594.

——— Further changes in crustacean nomenclature.

Proc. Biol. Soc. Wash., XVIII, Jan. 20, 1905, pp. 9, 10.

Proposes *Idothea* Fabricius 1776 for *Idotea* Fabricius 1798 and *Ligyda* Rafinesque 1815 for *Ligia* Fabricius 1798, the Fabrician genera having been shown to be invalid by Miss Rathbun in a previous number of the Proceedings of the Biological Society of Washington.

——— Isopods from the Alaska salmon investigation.

Bull. Bureau Fisheries, XXIV, 1904, pp. 209–221, text figs. 1–10. (Feb. 18, 1905.)

Fourteen species are enumerated, four of which are new, one, *Holophryxus alaskensis*, representing a new genus. Figures are given not only of the new forms but of *Rocinela belliceps* (Stimpson), *R. angustata* Richardson, and of the first incubatory lamella and the sixth leg of various specimens of *Bopyroides hippolytes*.

——— Descriptions of a new genus of isopoda belonging to the family Tanaidæ and of a new species of *Tanais*, both from Monterey Bay, California.

Proc. U. S. Nat. Mus., XXVIII, No. 1400, May 9, 1905, pp. 367–370, text figs. 1–13.

Pancolus, a new genus, and *P. californiensis* and *Tanais normani*, new species, were collected at Monterey Bay by Dr. Harold Heath.

WILSON, CHARLES BRANCH. Contributions from the Biological Laboratory of the Bureau of Fisheries at Woods Hole, Mass. The fish parasites of the genus *Argulus* found in the Woods Hole region.

Bull. Bureau Fisheries, XXIV, 1904 pp. 115–131, 31 text figs. (Feb. 14, 1905.)

WILSON, CHARLES BRANCH—Continued.

Based partly on material in the U. S. National Museum which was described in detail in volume XXV of the Proceedings.

——— New species of parasitic copepods from the Massachusetts coast.

Proc. Biol. Soc. Wash., XVIII, April 18, 1905, pp. 127–132.

Five new species from Woods Hole, Vineyard Sound and Buzzards Bay; the types of 3 species are in the U. S. National Museum, and the types of the other two will probably be placed in the Museum.

——— North American parasitic copepods belonging to the family Caligidæ. Part I.—The Caliginæ.

Proc. U. S. Nat. Mus., XXVIII, No. 1404, June 23, 1905, pp. 479–672, pls. V–XXIX, text figs. 1–50.

This is the third paper in the series on the parasitic copepods of the National Museum. It deals with all the North American species of Caliginæ, 23 in number, of which 13 are new; and 5 foreign species, of which 4 are new and one the type of a new genus. Keys are given to all the known species. Besides the systematic part the development of two species is traced, and the comparative anatomy of *Caligus* and *Lepeophtheirus* presented for the first time.

INSECTS.

ALDRICH, J. M. Smithsonian Miscellaneous Collections | Part of Volume XLVI | ——— | A Catalogue of | North American Diptera | (Or Two-winged Flies) | By J. M. Aldrich | [Seal] | No. 1444 | City of Washington | Published by the Smithsonian Institution | 1905. |

8vo., pp. 1–680.

ASHMEAD, WILLIAM H. A new genus and some new species of Hymenoptera from the Philippine Islands.

Can. Ent., XXXVI, No. 10, Oct., 1904, pp. 281–285.

Describes a new Larrid genus, *Thyreospher*, and 8 new species, taken by Father Stanton in Manila.

——— A new torymid from Utah.

Ent. News, XV, No. 8, Oct., 1904, p. 302.

Describes *Torymus wickhami*.

——— Description of new genera and species of Hymenoptera from the Philippine Islands.

Proc. U. S. Nat. Mus., XXVIII, No. 1387, Nov. 5, 1904, pp. 127–158, pls. I, II.

Two genera, *Taftia* and *Stantonia*, and 31 new species of Hymenoptera are described. The paper terminates with a check list of the species known to occur in the Philippines. Forty-six families, 135 genera, and 225 species are listed.

ASHMEAD, WILLIAM H. A hymenopterous parasite of the grape-berry moth.

Can. Ent., XXXVI, No. 11, Nov., 1904, pp. 333, 334.

Describes and figures *Thymaris slingerlandana*.

——— On the discovery of fig-insects in the Philippines.

Ent. News, XV, No. 10, Dec., 1904, p. 342.

Describes *Kradibia browni*, a genuine fig-insect, and its parasite, *Sycoryctes philippinensis*.

——— A new thrips from the Philippine Islands.

Ent. News, XVI, No. 1, Jan., 1905, p. 20.

Describes *Coleothrips tibialis*.

——— New Hymenoptera from the Philippine Islands.

Can. Ent., XXXVII, No. 1, Jan., 1905, pp. 3–8.

Describes two new genera, *Apterencyrtus* and *Brownius*, and 12 new species.

——— A new *Pezomachus* from Italy.

Can. Ent., XXXVII, No. 4, Apr., 1905, pp. 142, 143.

Describes *Pezomachus silvestrii*.

BANKS, NATHAN. Two new species of caddice-flies.

Proc. Ent. Soc. Wash., VI, July, 1904, p. 140.

——— Notes on the structure of the thorax and maxillæ in insects.

Proc. Ent. Soc., Wash., VI, July, 1904, p. 149.

BARBER, HERBERT S. Notes on *Thaumatoglossa* (*Axinocerus*) *americana* Jayne.

Proc. Ent. Soc. Wash., VII, No. 1, Jan., 1905, p. 10.

BUSCK, AUGUST. *Aristotella youngella*, a correction.

Can. Ent., XXXVI, No. 3, Mar., 1905, p. 87.

CAUDELL, ANDREW NELSON. Some Orthoptera taken at Moose Jaw, Assiniboia.

Can. Ent., XXXVI, No. 8, Aug., 1904, p. 248.

——— Orthoptera from southwestern Texas.

Science Bull. Mus. Brooklyn Inst. Arts and Sciences, I, No. 4, Dec., 1904, pp. 105–116, pls. VI–VII

——— On a collection of non-saltatorial Orthoptera from Paraguay

Journ. N. Y. Ent. Soc., XII, 1904, pp. 179–188.

——— A new species of the locustid genus Amblycorypha from Kansas.

Journ. N. Y. Ent. Soc., XIII, No. 1, March 1, 1905, p. 50.

CAUDELL, ANDREW NELSON. On a collection of Orthoptera from Southern Arizona, with descriptions of new species.
Proc. U. S. Nat. Mus., XXVIII, No. 1403, June 12, 1905, pp. 461–477, figs. 1–6.

——— Two interesting mantids from the United States.
Journ. N. Y. Ent. Soc., XIII, No. 2, June, 1905, pp. 82, 83.

——— *Aplopus mayeri*, new species.
Journ. N. Y. Ent. Soc., XIII, No. 2, June, 1905, pp. 83–85.

CHITTENDEN, FRANK H. A species of the tenebrionid genus *Latheticus* in the United States.
Journ. N. Y. Ent. Soc., XII, 1904, pp. 166, 167.

——— On the species of *Sphenophorus* hitherto considered as *simplex* Le Conte.
Proc. Ent. Soc. Wash., VI, 1904, pp. 127–130.

——— On the species of *Sphenophorus* related to *pertinax* Olivier, with descriptions of other forms.
Proc. Ent. Soc. Wash., VII, 1905, pp. 50–64.

——— On the species of *Sphenophorus* hitherto considered as *placidus* Say.
Proc. Ent. Soc. Wash., VII, 1905, pp. 130–137.

COQUILLETT, D. W. New Diptera from India and Australia.
Proc. Ent. Soc. Wash., VI, No. 3, July, 1904, p. 137.

——— New North American Diptera.
Proc. Ent. Soc. Wash., VI, No. 3, July, 1904, p. 166.
Describes 4 new genera and 53 new species.

——— New *Culex* from Australia.
Ent. News, XVI, No. 4, Apr., 1905, p. 116.

——— A new cecidomyiid on cotton.
Can. Ent., XXXVII, No. 6, June, 1905, p. 200.
Describes *Porricondyla gossypii* from Barbados, West Indies, the larvæ of which live beneath the bark of cotton plants.

——— New nematocerous Diptera from North America.
Journ. N. Y. Ent. Soc., XIII, No. 2, June, 1905, pp. 56–67.
Describes 41 new species.

CURRIE, ROLLA PATTESON. Dragon flies from the Kootenay district of British Columbia.
Proc. Ent. Soc. Wash., VII, No. 1, Jan., 1905, pp. 16–20.

DYAR, HARRISON G. Two new forms of *Œneis* Hübner.
Proc. Ent. Soc. Wash., VI, 1904, p. 142.

DYAR, HARRISON G. Brief notes on mosquito larvæ.
Journ. N. Y. Ent. Soc., XII, 1904, pp. 172–174.

——— The larva of *Culex punctor* Kirby, with notes on an allied form.
Journ. N. Y. Ent. Soc., XII, 1904, pp. 167–174.

——— Diverse mosquito larvæ that produce similar adults.
Proc. Ent. Soc. Wash., VI, 1904, pp. 143, 144.

——— Two notes on tineid moths.
Journ. N. Y. Ent. Soc., XII, 1904, p. 178.

——— New North American Lepidoptera and synonymical notes.
Proc. Ent. Soc. Wash., VII, 1905, p. 29.

——— Notes on synonymy and larvæ of Pyralidæ.
Proc. Ent. Soc. Wash., VII, 1905, pp. 158–160.

——— Our present knowledge of North American Corethrid larvæ.
Proc. Ent. Soc. Wash., VII, 1905, p. 13.

——— Remarks on genitalic genera in Culicidæ.
Proc. Ent. Soc. Wash., VII, 1905, p. 42.

HEIDEMANN, OTTO. Notes on North American Aradidæ.
Proc. Ent. Soc. Wash., VI, 1904, pp. 161–165.

——— Description of a new *Anasa* from North America.
Proc. Ent. Soc. Wash., VII, 1905, p. 5.

KEARFOTT, WILLIAM DUNHAM. Descriptions of new species of tortricid moths from North Carolina, with notes.
Proc. U. S. Nat. Mus., XXVIII, No. 1398, April 22, 1905, pp. 349–364.

MARLATT, C. L. The discovery of the native home of the San José scale in eastern China and the importation of its natural enemy.
Popular Science Monthly, August, 1904, pp. 306–317; 8 illustrations.
This is a revised popular account of an expedition to Japan and China for the purpose mentioned in the title, and brings the results on the imported Asiatic ladybird, enemy of the San José scale, down to the date of publication. It is practically a revision, with some additions, of an account previously published in the Yearbook of the Department of Agriculture for 1902 (1903).

REHN, JAMES A. G. Studies in the orthopterous subfamilies Acrydiinæ (Tettigoninæ), Eumastacinæ, and Proscopinæ.
Proc. Acad. Nat. Sci. Phila., 1904, pp. 658–683.

STEVENSON, EARLE C. The external parasites of hogs, being articles on the hog louse (*Hæmatopinus suis*) and mange, or scabies, of hogs.

Bull. Bureau Animal Industry, U. S. Dept. Agric., No. 69, 1905, 44 pp. figs. 1–29.

Descriptions and figures of *Hæmtopinus suis, Sarcoptes scabici suis,* and *Demodex folliculorum suis,* based partly on Museum material, together with a complete synonymy and bibliography of the first, and a discussion of the three forms in their economic aspects.

TITUS, E. S. G. Some new Osmiinae in the National Museum.

Proc. Ent. Soc. Wash., VI, No. 2, April, 1904, p. 98; *Journ. N. Y. Ent. Soc.*, XII, No. 1, March, 1904, p. 22.

WILLIAMSON, EDWARD BRUCE. The dragonflies (Odonata) of Burma and Lower Siam. 1.—Subfamily Calopteryginæ.

Proc. U. S. Nat. Mus., XXVIII, No. 1389, November 17, 1904, pp. 165–187, text figs. 1–18.

ARACHNIDS.

BANKS, NATHAN. A treatise on the acarina, or mites.

Proc. U. S. Nat. Mus., XXVIII, No. 1382, September 24, 1904, pp. 1–114, text figs. 1–201.

——— Arachnids from Cocos Island.

Proc. Ent. Soc. Wash., VII, No. 1, Jan., 1905, p. 20.

MISCELLANEOUS INVERTEBRATES.

AGASSIZ, ALEXANDER. Reports on an exploration off the west coast of Mexico, Central and South America, and off the Galapagos Islands, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer *Albatross*, during 1891, Lieut. Commander Z. L. Tanner, U. S. N., commanding. XXXII. The Panamic deep sea echini.

Mem. Mus. Comp. Zool., Cambridge, XXXI, Nov. 1, 1904, pp. I–X, 1–243, pls. 112 (in separate volume), text figs. 319.

The report deals principally with the morphological study of the tests of the species, which had been described in an earlier bulletin; followed by a discussion of the bathymetrical and geographical range of the Panamic and West Indian Echinid faunæ.

ASHWORTH, J. H. The anatomy of *Scalibregma inflatum*, Rathke.[a]

Quar. Journ. Micr. Sci., XLV (new series), Nov., 1901, pp. 237–309, pls. 13–15.

Includes a detailed description of the anatomy, and also an account of the history, distribution, habits, and general appearance of the species, *Scalibregma inflatum,* as well as a revision of the family Scalibregmidæ and a statement of its affinities. Two new genera are described, *Pseudoscalibregma* and *Asclerocheilus.*

CLARK, HUBERT LYMAN. Contributions from the Biological Laboratory of the U. S. Fish Commission at Woods Hole, Massachusetts. The echinoderms of the Woods Hole region.

Bull. U. S. Fish Com., XXII, 1902, pp. 545–576, figs. 1–116 (June 25, 1904).

The 24 species are fully described and figured. The best methods of preserving and studying echinoderms are given, and also a bibliography of the publications referred to.

COE, WESLEY R. Nemerteans of the west and northwest coasts of America.

Bull. Mus. Comp. Zool., XLVII, Mar., 1905, pp. 1–318, pls. 1–25, text figs. 1–62.

A general work, dealing with anatomical and histological structures, development, distribution, besides a systematic account of the genera and species. Eighteen species are described as new, and with one exception are represented by colored drawings.

EDWARDS, CHARLES LINCOLN. A quantitative study of *Holothuria atra* Jäger and the reestablishment of *Holothuria floridana* Pourtalés (=*Holothuria mexicana* Ludwig).

Science (new series), XXI, No. 532, March 10, 1905, pp. 383–384.

This is an abstract, presented before the American Society of Zoologists, at the Second Annual Meeting of the Eastern Branch at Philadelphia, December, 1904, of an extended paper to be published elsewhere. It is based on statistical analyses of 138 specimens, 20 from the Sandwich Island-Mozambique region and 118 from the Florida-Caribbean region.

FISHER, WALTER K. New starfishes from deep water off California and Alaska.

Bull. Bureau Fisheries, XXIV, 1904, pp. 291–320. (June 10, 1905.)

One genus, 2 subgenera, and 24 species are described, and one subfamily raised to family rank. The specimens were dredged by the steamer *Albatross* in Alaskan waters during the summer of 1903, and off the coast of California in the spring of 1904.

KISHINOUYE, K. Notes on the natural history of corals.

Journ. Imp. Fisheries Bureau, Tokyo, XIV No. 1, 1904, pp. 1–32, pls. I–IX, text figs. 1–4.

[a] This title was accidentally omitted from an earlier report.

KISHINOUYE, K.—Continued.

Describes the autozooid, siphonozooid, cœnenchym, spicules, gastro-vascular system, skeleton, mode of ramification, color and transparency of the skeleton, size, form, distribution, growth, attachment, and commensals. The systematic part deals with 7 species, one of which is new. The type specimen of *Corallium secundum* Dana, which is in the U. S. National Museum, is reproduced from a photograph made in Washington.

MARENZELLER, Emil von. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U. S. Fish Commission steamer *Albatross*, during 1891, Lieut. Commander Z. L. Tanner, U. S. N., commanding. XXXIII. Stein- und Hydro-Korallen.

Bull. Mus. Comp. Zool., XLIII, No. 2, Aug., 1904, pp. 75–87, pls. 1–3.

Twelve species are enumerated, of which one species of Madreporaria and two of Hydrocoralla are described as new.

—— Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California, in charge of Alexander Agassiz, carried on by the U. S. Fish Commission steamer *Albatross*, during 1891, Lieut. Commander Z. L. Tanner, U. S. N., commanding. XXXIV. *Lagisca irritans*, sp. nov., ein Symbiont von Hydrokorallen.

Bull. Mus. Comp. Zool., XLIII, No. 3, Aug., 1904, pp. 91–94, pl. 1.

The Polynoid here described was found commensal with *Stenohelia profunda* Moseley and *Errina macrogastra* Marenzeller, at station 3404.

RANSOM, B. H. An account of the tapeworms of the genus *Hymenolepis* parasitic in man, including reports of several new cases of the dwarf tapeworm (*H. nana*) in the United States.

Bull. 18 Hyg. Lab., U. S. Pub. Health & Mar.-Hosp. Serv., Sept., 1904, 138 pp., figs. 1–130.

The tapeworms in question are fully described and figured, and copious abstracts of all reported cases of their occurrence in man are given, including some 25 recent cases of *Hymenolepis nana* in the United States. A complete bibliography is added.

RANSOM, B. H. Notes on the spiny-suckered tapeworms of chickens (*Davainea echinobothrida* (=*Tænia botrioplites*) and *D. tetragona*).

Bull. Bureau Animal Industry, U. S. Dept. Agric., No. 60, 1904, pp. 55–69, figs. 41–52.

Descriptions and figures are given by which the two forms in question, hitherto much confused, may be clearly distinguished. Complete synonymy and bibliography are included.

—— Manson's eye worm of chickens (*Oxyspirura mansoni*), with a general review of nematodes parasitic in the eyes of birds.

Bull. Bureau Animal Industry, U. S. Dept. Agric., No. 60, 1904, 54 pp., pl. 1, figs. 1–40.

A complete review, with descriptions, figures, and bibliography of all the nematodes which have been reported parasitic in the eyes of birds, *Oxyspirura mansoni* being recorded for the first time in the United States.

—— A new nematode (*Gongylonema ingluvicola*) parasitic in the crop of chickens.

Circ. Bureau Animal Industry, U. S. Dept. Agric., No. 64, 1904, 3 pp., figs. 1, 2.

First report of the occurrence of a member of the genus *Gongylonema* in birds. The species in question is described and figured.

—— The gid parasite (*Cœnurus cerebralis*): its presence in American sheep.

Bull. Bureau Animal Industry, U. S. Dept. Agric., No. 66, 1905, 23 pp., figs. 1–12.

The first report of the occurrence of *Cœnurus cerebralis* in the United States.

SCHULZE, Franz Eilhard. Amerikanische Hexactinelliden nach dem materiale der Albatross-Expedition. Herausgegeben mit Unterstützung der Königl. Preuss. Akademie der Wissenschaften. Mit einem Atlas von 19 Tafeln. Jena, Verlag von Gustav Fischer. 1899.[a]

4to. pp. 1–126.

Includes a notice of the hexactinellids previously known from America; a description of the genera and species (22 genera and 37 species, of which 6 genera and 24 species are new), with chapters on classification and geographical distribution.

STEVENSON, Earle C. A new parasite (*Strongylus quadriradiatus* n. sp.), found in the pigeon. (Preliminary report.)

Circ. Bureau Animal Industry, U. S. Dept. Agric., No. 47, 1904, 6 pp., figs. 1–10.

[a] This title was accidentally omitted from an earlier report.

STILES, CHARLES WARDELL. Illustrated key to the trematode parasites of man.

Bull. 17 Hyg. Lab., U. S. Pub. Health and Mar.-Hosp. Serv., Aug., 1904, 66 pp., 88 figs.

This paper contains analytical keys, generic, specific, and clinical diagnoses to the trematodes which infect man, tables of synonomy, indications to geographical and zoological distribution, and references to medical treatment and to the literature.

WILSON, H. V. Reports on an exploration off the west coasts of Mexico, Central and South America, and off the Galapagos Islands, in charge of Alexander Agassiz, by the U. S. Fish Commission steamer *Albatross*, during 1891, Lieut. Commander Z. L. Tanner, U. S. N., commanding. XXX. The sponges.

Mem. Mus. Comp. Zool., XXX, No. 1, July, 1904, pp. 1–164, pls. 1–26.

The collection of sponges described includes 47 species and subspecies, belonging to the Hexactinellida, Monaxonida, and Tetractinellida. Thirty-three species and subspecies are new to science. In addition, some results of general biological interest are discussed.

FISHES.

BEAN, BARTON A. The fishes of the Bahama Islands.

The Bahama Islands, The Macmillan Co., New York and London, 1905, pp. 289–325, pls. LII–LXI.

An article on the Fishes of the Bahamas, accompanied by ten colored plates, and forming a part of the work entitled "The Bahama Islands," edited by George B. Shattuck.

GILL, THEODORE. State ichthyology of Massachusetts.

Science (new series), XX, No. 506, Sept. 9, 1904, pp. 321–338.

This was the subject of an address delivered at Woods Hole before the Marine Biological Laboratory on the evening of August 3, 1904. "Only the salient features of a long history are given." (1) A brief notice of the early historians is followed by (2) an explanation of some of the popular names of fishes and fuller accounts of the contributions to ichthyology of (3) William Dandridge Peck, (4) Charles Alexandre Lesueur, (5) Jerome Crowninshield Smith, (6) David Humphrey Storer, (7) Theodore Lyman, (8) Spencer F. Baird, (9) G. Brown Goode and Tarleton H. Bean, and (10) Hugh M. Smith. In conclusion (11) attention is called to the number of fish estrays from tropical waters.

GILL, THEODORE. *Labracinus* the proper name for the fish genus *Cichlops*.

Proc. U. S. Nat. Mus., XXVIII, No. 1384, Oct. 5, 1904, p. 119.

The name *Cichlops* of Müller and Troschel (1849) is precluded from retention by the application of the name to a genus of birds by Hodgson in 1844. *Labracinus* of Schlegel (1850) is revived in its place.

Note on the genus *Prionurus* or *Acanthocaulos*.

Proc. U. S. Nat. Mus., XXVIII, No. 1385, Oct. 5, 1904, p. 121.

A new name (*Acanthocaulos*) was proposed by E. R. Waite in place of *Prionurus* of Lacépède, supposed to have been first proposed in 1830 and preoccupied by *Prionurus* of Ehrenberg in 1829. It has been proved that Lacépède published his name as early as 1804.

The striped bass of the St. Lawrence.

Forest and Stream, LXIII, No. 17, Oct. 22, 1904, p. 348.

In connection with a recent identification of the "Bar" of the St. Lawrence with the common striped bass (*Roccus lineatus*) it is questioned whether it is not rather the *Roccus chrysops* of the great lakes and interior waters. More information is required.

On the systematic relations of the ammodytoid fishes.

Proc. U. S. Nat. Mus., XXVIII, No. 1388, Nov. 12, 1904, pp. 159–163, text figs. 1–4.

After a notice of the views of previous authors respecting the affinities of the Sandlaunces or Ammodytids, that family is claimed to be most nearly related to the Hemerocœtids, and consequently to the group of Jugulares. *Embolichthys* is retained in the family and *Cobitopsis* far removed. The principal synonyms of the family are enumerated, and the genera *Ammodytes* and *Hyperoplus* maintained for the northern forms.

The sculpin and its habits.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 3, Jan. 31, 1905, pp. 348–359, pl. 49.

Indications are given as to (1) the sources of information, (2) the characteristics of the family of Cottids and genus *Myoxocephalus* as well as vernacular nomenclature, and (3) the specific and sexual characters of the *Myoxocephalus scorpio*. The habits of the species are considered in sections devoted to (4) the localities it frequents, its food, and its utterances, (5) the mutual relations of the sexes, (6) its oviposition, and (7) its larval conditions. The concluding section (8) briefly notices the economical value of the fish.

GILL, THEODORE. The scorpænoid fish, *Neosebastes entaxis*, as the type of a distinct genus.

Proc. U. S. Nat. Mus., XXVIII, No. 1393, Feb. 15, 1905, pp. 219, 220, text figs. 1, 2.

A Japanese Scorpænid having been referred by Jordan & Starks to the genus *Neosebastes*, a reexamination was made, which resulted in a new definition of the genus and the separation from it of the *N. entaxis* as the type of a new genus named *Sebastosemus*.

——— On the generic characteristics of *Prionotus stearnsii*.

Proc. U. S. Nat. Mus., XXVIII, No. 1396, Feb. 15, 1905, pp. 339–342, text figs. 1–4.

An "examination of various species of Triglids" led to the recognition of two groups which differed so much from the genus *Prionotus*, to which they had been previously referred, as to seem worthy of generic or subgeneric distinction. One, typified by the *P. stearnsii*, was named *Colotrigla*, and the other, represented by the *P. alatus*, was designated as *Fissala*.

——— Notes on the genera of synanceine and pelorine fishes.

Proc. U. S. Nat. Mus., XXVIII, No. 1394, Feb. 23, 1905, pp. 221–225, text fig. 1.

An examination of the Synanceinæ led to the recognition of four genera whose proper names were *Synanceia* (*verrucosa*), *Erosa* (*erosa*), *Leptosynanceia* (*astroblepa*), and *Trachicephalus* (*uranoscopus*); the *Pelorinae* (newly named *Inimicinæ*) were divided among *Simopias* and *Inimicus; Simopias* was proposed as a substitute for *Pelor* (preoccupied). In an appended Note on *Scorpaena frondosa* that species is isolated as the type of a new genus named *Rhinopias*.

——— A new introduction to the study of fishes. [Review of the Cambridge Natural History, volume 7.]

Science (new series) XXI, No. 539, April 28, 1905, pp. 652–661.

The seventh volume of the Cambridge Natural History is reviewed under nine sections, treating respectively of (1) generalities, (2) Hemichordata, (3) Urochordata, (4) Cephalochordata, (5) Pisciform Craniata, (6) Cyclostomata, (7) Elasmobranchii, (8) Teleostomi, and (9) Methods.

A new family is proposed for the leptocardian genus *Amphioxides*, and named *Amphioxididæ*.

——— The life history of the angler.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, May 6, 1905, pp. 500–516, pls. 73–75.

(1) The characters of the family (Lophiidæ) and genus (*Lophius*) to which the common Angler (*Lophius piscatorius*) belongs are briefly noticed; (2) the popular names and (3) geographical range are then considered; habits are described in sections devoted to (4) the general behavior of the fish, (5) its food, and (6) its oviposition and embryology. Data follow respecting (7) its food value and the superstitions concerning it, (8) its relations to other species of the family of Lophiids, and (9) its relations to the family of Antennariids.

——— The tarpon and lady-fish and their relatives.

Smithsonian Misc. Colls., XLVIII, Quar. issue, vol. 3, pt. 1, No. 1576, May 13, 1905, pp. 31–46, pl. 17–21.

The tarpon is considered as (1) a member of the family of Elopids and (3) a species of the genus *Megalops* contrasted with (2) the species of the genus *Elops;* (4) the history of the popular names is indicated; its habits are noticed in sections devoted to (5) its range and appearance on the American coast, (6) its activity and food, (7) its breeding habits and size, and (8) its economic position. In conclusion, (9) a notice of the congeneric ox-eye herring (*Megalops cyprinoides*) is given.

The lady-fish, after a brief diagnosis of its family (Albulids), is considered with reference to (1) its range, (2) its food and manner of feeding, and (3) its early stages, from a translucent larval condition to the acquisition of its mature characteristics. In a final section (4) its value as a food and game fish is adverted to.

The gisu, or *Pterothrissus gisu* of Japan, is also briefly noticed.

JORDAN, DAVID STARR. Note on the salmon and trout of Japan.

Proc. U. S. Nat. Mus., XXVIII, No. 1399, May 9, 1905, pp. 365, 366.

——— and SNYDER, JOHN OTTERBEIN. Description of a new species of fish (*Apogon evermanni*) from the Hawaiian Islands, with notes on other species.

Proc. U. S. Nat. Mus., XXVIII, No. 1386, Oct. 6, 1904, pp. 123–126.

——— and STARKS, EDWIN CHAPIN. On a collection of fishes made in Korea, by Pierre Louis Jouy, with descriptions of new species.

Proc. U. S. Nat. Mus., XXVIII, No. 1391, Feb. 23, 1905, pp. 193–212, text figs. 1–11.

SCHMIDT, PETER. On the *Liparis* (*Trisegistus*) *owstoni* Jordan and Snyder.

Proc. U. S. Nat. Mus., XXVIII, No. 1390, Nov. 29, 1904, pp. 189–191, text figs. 1, 2.

SNYDER, JOHN OTTERBEIN. (See under David Starr Jordan.)

STARKS, EDWIN CHAPIN. (See under David Starr Jordan.)

REPTILES AND BATRACHIANS.

McGREGOR, RICHARD C. Notes on Hawaiian reptiles from the island of Maui.

Proc. U. S. Nat. Mus., XXVIII, No. 1383, Sept. 24, 1904, pp. 115–118.

STEJNEGER, LEONHARD. A new species of lizard from the Riukiu Archipelago.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, No. 1487, Nov. 9, 1904, pp. 294, 295.

Tulydromus dorsalis described as new species, p. 294; type U. S. N. M., No. 34162.

——— Three new frogs and one new gecko from the Philippine Islands.

Proc. U. S. Nat. Mus., XXVIII, No. 1397, Feb. 15, 1905, pp. 343–348.

Rana mearnsi (p. 343), *Cornufer worcesteri* (p. 345), *Philautus woodi* (p. 346), *Lepidodactylus planicaudus* (p. 348), are described as new species.

——— A snake new to the District of Columbia.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, pp. 73, 74.

Cemophora coccinea, from the vicinity of Anacostia.

——— Description of a new toad, from Cuba.

Proc. U. S. Nat. Mus., XXVIII, No. 1406, June 24, 1905, pp. 765–767, figs. 1–6.

Bufo longinasus, new species (p. 765); type U. S. N. M., No. 27419.

——— Batrachians and land reptiles of the Bahama Islands.

The Bahama Islands, Geographical Society of Baltimore (New York, 1905, The Macmillan Co.), pp. 327–343.

A general account of the herpetological fauna of the Bahamas, with a list of the species, critical remarks, and a discussion of the origin and the relations of the fauna to adjacent regions.

BIRDS.

ALLEN, GLOVER M. Summer birds of the Bahamas.

Auk, XXII, No. 2, April, 1905, pp. 113–133, pl. I.

An account of the birds observed by the writer during a visit to the Bahamas during July, 1904, with remarks on the distribution of birds in this group of islands. Sixty-four species were observed, of which *Dryobates villosus piger* (p. 124) is described as new.

American Ornithologists' Union Committee on Nomenclature. Thirteenth Supplement to the American Ornithologists' Union check-list of North American birds.

Auk, XXI, No. 3, July, 1904, pp. 411–424.

A list of 44 rulings by the committee involving changes in the nomenclature of the "Check-List," with a further list of proposed changes which are rejected.

BANGS, OUTRAM. A correction of Barrows' record of *Coccyzus pumilus* from Concepcion del Uruguay.

Proc. Biol. Soc. Wash., XVII, Dec. 27, 1904, p. 165.

Two specimens of cuckoos recorded by Barrows as *Coccyzus pumilus* are found to be *C. cinereus*.

——— Descriptions of seven new subspecies of American birds.

Proc. Biol. Soc. Wash., XVIII, June 9, 1905, pp. 151–156.

Crypturus soui mustelinus (p. 151), *Scardafella inca dialeucos* (p. 152), *Claravis pretiosa livida* (p. 153), *Geotrygon martinica digressa* (p. 153), *Dacnis cayana callaina* (p. 154), *Calospiza lavinia cara* (p. 155), and *Phonicothraupis rubica confinis* (p. 156) are described as new.

BANGS, OUTRAM, and ZAPPEY, W. R. Birds of the Isle of Pines.

Am. Naturalist, XXXIX, No. 460, April, 1905, pp. 179–215, text figs. 1–8.

This paper is based mainly on a collection made in the Isle of Pines, Cuba, by W. R. Zappey, but the authors have drawn on the records of Poey, Gundlach, and Cory, and from the unpublished notes of Palmer and Riley, for the purpose of giving a complete list of the birds of this island. The number of species here given is 120, of which the following are described as new: *Ardea repens* (p. 186), *Grus nesiotes* (p. 193), *Saurothera merlini decolor* (p. 199), *Prionotelus temnurus vescus* (p. 204), *Myadestes elizabeth retrusus* (p. 208), and *Spindalis pretrei pinus* (p. 213).

——— (See also under John E. Thayer.)

CLARK, AUSTIN H. Preliminary descriptions of three new birds from St. Vincent, West Indies.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, pp. 61–64.

Holoquiscalus dispar (p. 61), *Buteo antillarum* (p. 62), and *Urubitinga anthracina cancrivora* (p. 63) are described as new.

——— A supposed specimen of the Yellow Warbler (*Dendroica æstiva*), from Grenada, West Indies.

CLARK, AUSTIN H.—Continued.

Auk, XXII, No. 2, April, 1905, pp. 212–214.

A specimen in the National Museum collection hitherto recorded as *Dendroica æstiva* is now identified as an immature male of *D. ruficapilla*.

MEARNS, EDGAR A. Descriptions of a new genus and eleven new species of Philippine birds.

Proc. Biol. Soc. Wash., XVIII, Jan. 20, 1905, pp. 1–8.

The following species, collected by the author, mainly on Mount Apo, Mindanao, are described as new: *Leonardia woodi* (p. 2), *Pseudotharrhaleus griseipectus* (p. 2), *Brachypteryx mindanensis* (p. 3), *Macronous mindanensis montanus* (p. 4), *Æthopyga boltoni* (p. 4), *Cyrtostomus dinagatensis* (p. 5), *Anthreptes cagayanensis* (p. 6), *Merula kelleri* (p. 6), *Gerygone rhizophoræ* (p. 7), *Muscicapula montigena* (p. 8), and *Pardaliparus elegans mindanensis* (p. 8). *Leonardia* (p. 1) is a new genus of Timaline bird, from Mount Apo.

——— Note on a specimen of *Pithecophaga jefferyi* Ogilvie-Grant.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, p. 7.

Brief account of a specimen of the rare Philippine Monkey-eating Eagle received by the U. S. National Museum.

——— Descriptions of eight new Philippine birds, with notes on other species new to the Islands.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, pp. 83–90.

Turnix suluensis (p. 83), *Muscadivora langhornei* (p. 84), *Caprimulgus affinis mindanensis* (p. 85), *Phyllergates heterolæmus* (p. 86), *Cephalophoneus suluensis* (p. 86), *Hyloterpe apoensis* (p. 86), *Dicæum davao* (p. 87), and *Lamprocorax todayensis* (p. 88), are described as new, and the generic name *Leonardia* is altered (p. 88) to *Leonardina*. Seven species additional to the Philippine avifauna, recently collected by the author, are briefly commented upon.

——— Two specimens of *Chætura celebensis* (Sclater).

Proc. Biol. Soc. Wash., XVIII, June 29, 1905, p. 185.

Note on two specimens of the Giant Swift of Celebes, recently received by the National Museum from Dr. Daniel G. Beebe, and constituting the fifth and sixth recorded specimens of the species.

NELSON, E. W. Descriptions of four new birds from Mexico.

Proc. Biol. Soc. Wash., XVII, Oct. 6, 1904, pp. 151, 152.

NELSON, E. W.—Continued.

The following are described as new: *Porzana goldmani* (p. 151), *Empidonax fulvifrons fusciceps* (p. 152), *Arremonops superciliosus chiapensis* (p. 152), and *Telmatodytes palustris tolucensis* (p. 152).

——— Description of a new species of whip-poor-will from Mexico.

Proc. Biol. Soc. Wash., XVIII, Mar. 31, 1905, pp. 111, 112.

Antrostomus notabilis (p. 111) is described as a new species from Tamaulipas.

——— Notes on the names of certain North American birds.

Proc. Biol. Soc. Wash., XVIII, Apr. 18, 1905 pp. 121–126.

Notes on the nomenclature of several North American birds, belonging to the genera *Sula*, *Accipiter*, *Cathartes*, and *Tangavius* (vice *Callothrus*).

OBERHOLSER, HARRY C. A monograph of the genus *Dendrocincla* Gray.

Proc. Acad. Nat. Sci. Phila., for 1904, June 29, 1904, pp. 447–463.

Twenty species of this genus are recognized, of which the following are new: *Dendrocincla anabatina typhea* (p. 452), *D. enalincia* (p. 454), *D. ridgwayi* (p. 458), *D. meruloides aphanta* (p. 460), and *D. homochroa acedesta* (p. 462).

——— Description of a new *Sylvietta*.

Smithsonian Misc. Colls., XLVII Quar. issue, pt. 3, Mar. 2, 1905, pp. 373, 374.

Sylvietta rufescens ochrocara (p. 373), is described as a new subspecies from Damara Land.

——— Notes on the nomenclature of certain genera of birds.

Smithsonian Misc. Colls., XLVIII, Quar. issue, III, pt. 1, No. 1579, May 13, 1905, pp. 59–68.

Notes on 17 genera in which a change of name is required. A list of the recognized species of each genus is given. New names are proposed as follows: *Dyspetornis* (p. 61), *Xiphornis* (p. 64), *Notiospiza* (p. 64), *Horizillas* (p. 65), *Conopotheras* (p. 66), *Charitospiza* (p. 67), *Charitospiza eucosma* (p. 67), and *Ammospiza* (p. 68).

——— Description of a new genus and species of Trochilidæ.

Proc. Biol. Soc. Wash., XVIII, June 29, 1905, pp. 161, 162.

Acronympha (p. 161), is a new genus, and *A. prosantis* (p. 162) a new species, of humming bird.

OSGOOD, WILFRED H. A biological reconnaissance of the base of the Alaska Peninsula.

OSGOOD, WILFRED H.—Continued.

North Am. Fauna, No. 24, Nov. 23, 1904, pp. 51–81.

The "List of Birds" observed during this reconnaissance numbers 137 species and subspecies, all fully annotated.

RICHMOND, CHARLES W. Notes on the birds described by Pallas in the "Adumbratiuncula" of Vroeg's Catalogue.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 3, No. 1548, Jan. 31, 1905, pp. 342–347.

In connection with this paper there was published a verbatim reprint of the "Adumbratiuncula" of Vroeg's Catalogue, a scarce tract in which Pallas described 35 supposed new species of birds. Dr. Richmond endeavors to identify these birds and give their modern equivalents.

——— The generic name of the willet.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, p. 75.

Note showing the name *Symphemia*, long used for the Willet, to be a synonym of *Ereunetes*. *Catoptrophorus* of Bonaparte (1828) is suggested as the earliest generic name for this species.

——— New generic name for the giant fulmar.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, p. 76.

Macronectes is proposed in place of *Ossifraga* (preoccupied).

——— Note on the synonymy of *Hæmatospiza sipahi*.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, pp. 75, 76.

Mention is made of three overlooked names proposed for this species.

——— Description of a new swiftlet from Mount Kina Balu, Borneo.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, No. 1565, Apr. 5, 1905, pp. 431, 432.

Collocalia dodgei (p. 431) is described as new.

RIDGWAY, ROBERT. Descriptions of seven new species and subspecies of birds from Tropical America.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 1, No. 1467, Aug. 6, 1904, pp. 112, 113.

The following birds are described as new: *Myadestes genibarbis cherrii* (p. 112), *Catharus fuscator sanctæ-martæ* (p. 112), *Cichlherminia coryi* (p. 112) *Cinclocerthia ruficauda tenebrosa* (p. 112), *Cinclocerthia ruficauda pavida* (p. 113), *Mimus gilvus guatemalensis* (p. 113), and *Mimus gilvus tolimensis* (p. 113).

The Birds | of | North and Middle America: | A descriptive catalogue | of | the—higher groups, genera, species, and subspecies of birds | known to occur in North America, from the | Arctic Lands to the Isthmus of Panama, | the West Indies and other islands | of the Caribbean Sea, and the | Galapagos Archipelago. | By | Robert Ridgway, | Curator, Division of Birds. | — | Part III. | [Eight lines of contents]— | Washington: | Government Printing Office. | 1904.

Bull. 50 (Part III) U. S. Nat. Mus., 8vo, pp. I–XX, 1–801, pls. I–XIX. (Published Dec. 31, 1904.)

This volume treats of 434 species and subspecies, divided among the following families: Motacillidæ, Hirundinidæ, Ampelidæ, Ptilogonatidæ, Dulidæ, Vireonidæ, Laniidæ, Corvidæ, Paridæ, Sittidæ, Certhiidæ, Troglodytidæ, Cinclidæ, Chamæidæ, and Sylviidæ. Outline drawings, showing the main characters of the 72 genera embraced in this part, are given in the 19 plates accompanying the volume.

The three parts of the work now published cover most of the Passeres, and deal with about 1,250 species and subspecies, or about two-fifths of the total number known to occur in North and Middle America.

RILEY, J. H. Note on the generic names *Bellona*, *Orthorhynchus*, *Chrysolampis*, and *Eulampis*.

Auk, XXI, No. 4, Oct., 1904, pp. 485, 486.

Note on the generic names applied to certain hummingbirds. *Microlyssa* (p. 485) is a new name for *Bellona* Reichenbach (preoccupied).

——— On the proper name of the tody of Jamaica.

Auk, XXI, No. 4, Oct., 1904, p. 486.

Todus todus is shown to be the proper name for this species.

——— Description of a new *Myiarchus* from Grenada and St. Vincent, West Indies.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, No. 1478, Nov. 8, 1904, pp. 275, 276.

Myiarchus oberi nugator (p. 275) is described as new.

Catalogue of a collection of birds from Barbuda and Antigua, British West Indies.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, No. 1478, Nov. 8, 1904, pp. 277–291.

A list of 51 species and subspecies, with critical remarks on several forms. The following are described as new: *Cerchneis sparveria loquacula* (p. 281), from Porto Rico; *Coccyzus*

RILEY, J. H.—Continued.

minor shelleyi (p. 285), and *Dendroica subita* (p. 289).

On the correct name for the mountain thrush of the Lesser Antilles.

Proc. Biol. Soc. Wash., XVIII, June 29, 1905, p. 186.

Note showing *Allenia apicalis* (Hartlaub) to be the correct name for the species recently called *A. montana* or *A. albiventris*.

Birds of the Bahama Islands.

The Bahama Islands, Geographical Society of Baltimore (New York, 1905, Macmillan Co.), pp. 347–368.

An account of the birds of the Bahamas, based mainly on collections and observations made by the author, while a member of the expedition sent to the Islands by the Geographical Society of Baltimore. The derivation of the Bahaman avifauna is fully considered, and a complete list of the birds recorded from the Islands is added.

STEJNEGER, LEONHARD. The birds of the genus *Cinclus* and their geographical distribution.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, April 5, 1905, pp. 421–430.

A brief essay on the origin, relationships, and geographical distribution of the Dippers, with a condensed synopsis of the 31 recognized forms.

THAYER, JOHN E., and BANGS, OUTRAM. The Vertebrata of Gorgona Island, Colombia. Aves.

Bull. Mus. Comp. Zool., XLVI, No. 5, June, 1905, pp. 91–98.

Notes on sixteen species of birds obtained by W. W. Brown, Jr., on Gorgona Island, of which the following are described as new: *Sula etesiaca* (p. 92), *Urubitinga subtilis* (p. 94), *Thamnophilus gorgonæ* (p. 95), *Cyanerpes gigas* (p. 96), and *Careba gorgonæ* (p. 97).

WILLIAMS, R. W., JR. A preliminary list of the birds of Leon County, Florida.

Auk, XXI, No. 4, Oct., 1904, pp. 449–462.

An annotated list of 156 species of birds detected by the author in Leon County, Florida.

ZAPPEY, W. R. (See under Outram Bangs.)

MAMMALS.

ALLEN, GLOVER M. Notes on Bahama rats.

Proc. Biol. Soc. Wash., XVIII, Feb. 21, 1905, pp. 65–72.

Notes on the distribution and habits of 6 species.

GOLDMAN, E. A. Twelve new wood rats of the genus *Neotoma*.

Proc. Biol. Soc. Wash., XVIII, Feb. 2, 1905, pp. 27–34.

GOLDMAN, E. A.—Continued.

Specimens belonging to the U. S. National Museum were used for comparison.

MACFARLANE, R. Notes on mammals collected and observed in the northern Mackenzie River district, Northwest Territories of Canada, with remarks on explorers and explorations of the far North.

Proc. U. S. Nat. Mus., XXVIII, No. 1405, June 22, 1905, pp. 673–764, pls. XXX–XXXIV, figs. 1, 2.

MEARNS, EDGAR A. Descriptions of new genera and species of mammals from the Philippine Islands.

Proc. U. S. Nat. Mus., XXVIII, No. 1402, May 13, 1905, pp. 425–460.

New genera: *Urogale* (p. 435), *Podogymnura* (p. 436), *Bullimus* (p. 450), *Limnomys* (p. 451), *Tarsomys* (p. 453), *Apomys* (p. 455). New species: *Cynomolgus mindanensis* (p. 428), *Cynomolgus mindanensis apoensis* (p. 429), *Cynomolgus suluensis* (p. 430), *Cynomolgus cagayanus* (p. 431), *Pteropus lanensis* (p. 432), *Pteropus cagayanus* (p. 433), *Urogale cylindrura* (p. 435), *Podogymnura truei* (p. 437), *Mus tagulayensis* (p. 439), *Mus albigularis* (p. 440), *Mus magnirostris* (p. 441), *Mus mindanensis* (p. 442), *Mus zamboangæ* (p. 443), *Mus kelleri* (p. 444), *Mus todayensis* (p. 445), *Mus vulcani* (p. 446), *Mus vulcani apicis* (p. 447), *Mus pantarensis* (p. 448), *Mus commissarius* (p. 449), *Bullimus bagobus* (p. 450), *Limnomys sibuanus* (p. 452), *Tarsomys apoensis* (p. 453), *Apomys hylocœtes* (p. 456), *Apomys petræus* (p. 458), *Apomys insignis* (p. 459).

MERRIAM, C. HART. A new sea otter from Southern California.

Proc. Biol. Soc. Wash., XVII, Oct. 6, 1904, p. 159.

A description of *Latax lutris nereis*, new subspecies. Specimens belonging to the National Museum were used for comparison.

MILLER, GERRIT S., JR. Mammals of the Bahama Islands.

The Bahama Islands, Geographical Society of Baltimore (New York, 1905, Macmillan Co.), pp. 371–384, pls. 2, 3.

An historical and descriptive account of the mammals known to occur in the islands.

TRUE, FREDERICK W. Smithsonian Contributions to Knowledge | Volume XXXIII. | The Whalebone Whales | of the | Western North Atlantic | compared with those occurring in European waters | with some observations on the species | of the North Pacific | By | Frederick W. True | Head Curator, Department of Biology, United States National Museum. | [Seal] | (No. 1414) | City of Washing-

TRUE, FREDERICK W.—Continued.

ton | Published by the Smithsonian Institution | 1904.

4to., pp. I to VII, 1–332, pls. 1 to 50, text figs. 1 to 97. (August 29, 1904.)

GENERAL ZOOLOGY.

STILES, CHARLES WARDELL. Zoological pitfalls for the pathologist.

Proc. N. Y. Path. Soc., N. Y., 1904 (1905), pp. 1–20.

A general review of zoological errors of interpretation into which pathologists have fallen.

ANTHROPOLOGY.

PHYSICAL ANTHROPOLOGY.

HRDLIČKA, ALEŠ. Directions for collecting information and specimens for physical anthropology.

Bull. U. S. Nat. Mus., No. 39, Part R, Nov. 3, 1904, pp. [1]-[25], pls. I–VIII.

Instructions to collectors of skeletal, brain, and embryological material, and other objects for physical anthropology, with color standards, after Broca.

——— Two artificially deformed crania.

Am. Anthropologist (new series), VI, Oct.–Dec., 1904, pp. 756–758.

——— Head deformation among the Klamath.

Am. Anthropologist (new series), VII, Apr.–June, 1905, pp. 360–361.

——— Brain weight in vertebrates.

Smithsonian Misc. Colls., XLVIII, Quar. issue, III. pt. 1, No. 1582, June 10, 1905, pp. 91–112, pls. XXXII, XXXIII.

A collection of data obtained in the laboratory of the Division of Physical Anthropology, U. S. National Museum, on the absolute and relative weights of the brains of 485 animals, received in the Division within two years; with a bibliography.

——— The painting of human bones among the American aborigines.

Rep. Smithsonian Inst., 1904 (1905), pp. 607–617, pls. I–III.

ARCHEOLOGY.

CASANOWICZ, I. M. Identification of some Graeco-Egyptian portraits.

Am. Anthropologist (new series), VI, No. 2, April-June, 1904, pp. 361–363.

A discussion of the religious and artistic historical import and development of the Egyptian mummy portraits, and the supposed identity of some of them with cameos, coins, etc., which represent royal personages.

CASANOWICZ, I. M. The Wat Chang pagoda of Bangkok, Siam.

Smithsonian Misc. Colls., XLVII. Quar. issue, II, pt. 2, No. 1483, Nov. 9, 1904, pp. 273, 274, pl. I.

Description of the structure, after a model in the U. S. National Museum, with a discussion of the significance and architectural development of this religious edifice in various Buddhist countries.

HOLMES, W. H. Contributions of American archeology to human history.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, Apr. 5, 1905, pp. 412–420.

Read before the Congress of Americanists at Stuttgart, Germany, Aug. 21, 1904.

——— Notes on the antiquities of Jemez Valley, New Mexico.

Am. Anthropologist (new series), VII, No. 2, April–June, 1905, pp. 198–212, figs. 6–12.

ETHNOLOGY.

FEWKES, J. WALTER. Porto Rican stone collars and tripointed idols.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 2, Oct. 10, 1904, pp. 163–186, pl. XXI–XXVII.

HAWLEY, E. H. Sympathetic drums.

Science (new series), XX, No. 518, Dec. 2, 1904, p. 768.

The film on the gourd resonator of African xylophones is thought to act as a sympathetic drum.

HOUGH, WALTER. Kava drinking as practised by the Papuans and Polynesians.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 1, Aug. 6, 1904, pp. 85–92, pl. XVII.

MILLER, E. Y. The tugda, or rice planter of the Coyunos, Philippine Islands.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 3, No. 1556, Mar. 2, 1905, pp. 375–376, pls. LI, LII.

Describes and illustrates a very primitive method of rice planting suggestive of the modern grain drill.

PHOTOGRAPHY.

SMILLIE, THOMAS W. Photographing on wood for engraving.

Smithsonian Misc. Colls., XLVII, Quar. issue, II, pt. 4, May 6, 1905, pp. 497–499.

A brief technical paper giving instructions in photographing on wood for engraving.

MUSEUM-HISTORY AND ADMINISTRATION.

ADLER, CYRUS. Exhibit of the United States National Museum in Historic Archeology at the St. Louis Exposition.

Am. Journ. Archeol. (second series), IX, No. 1, Jan.–March, 1905, pp. 86, 87.

MASON, OTIS TUFTON. Report on the Department of Anthropology for the year 1902–3.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1903, Sept. 28, 1904, pp. 51–60.

MERRILL, GEORGE P. Report on the Department of Geology for the year 1902–3.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1903, Sept. 28, 1904, pp. 83–99.

——— The new building for the National Museum at Washington, D. C. An abstract from the report of the Assistant Secretary relative to the plans finally adopted for the National Museum.

Am. Geologist, XXXV, June, 1905, pp. 378–385, 1 pl.

MEYER, A. B. Studies of museums and kindred institutions of New York City, Albany, Buffalo and Chicago, with notes on some European institutions.

MEYER, A. B.—Continued.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1903, June 1, 1905, pp. 311–608, pls. 1–40, text figs. 1–120.

RATHBUN, RICHARD. Report upon the condition and progress of the U. S. National Museum during the year ending June 30, 1903.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1903, Oct. 1, 1904, pp. 1–174.

——— The United States National Museum: An account of the buildings occupied by the National Collections.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1903, May 15, 1905, pp. 177–309, pls. 1–29.

STILES, CHARLES WARDELL. Report of the Division of Zoology of the Hygienic Laboratory.

Ann. Rep. Surg. Gen., Pub. Health and Mar.-Hosp.Serv., 1903(1904), pp. 330–335.

Contains, among other data, a list of additions to the collections deposited in the U. S. National Museum by the Marine-Hospital Service.

TRUE, FREDERICK W. Report on the Department of Biology for the year 1902–3.

Rep. Smithsonian Inst. (U. S. Nat. Mus.), 1903, Sept. 28, 1904, pp. 61–82.

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